LAUREA

Improving service development through co-creation with internal users

Hagelberg, Ulla & Mölsä, Annemari

2012 Leppävaara

LAUREA UNIVERSITY OF APPLIED SCIENCES
Laurea Leppävaara

Improving service development through co-creation with internal users

Ulla Hagelberg, Annemari Mölsä
Degree programme in
Service Innovation and Design
April 2012

LAUREA UNIVERSITY OF APPLIED SCIENCES ABSTRACT
Laurea Leppävaara
Degree Programme in Service Innovation and Design

Ulla Hagelberg, Annemari Mölsä

Improving service development through co-creation with internal users

Year 2012 Pages 142

Until recent days technology and efficiency in product development have outstripped customer needs in importance. However, this kind of strategy will not succeed anymore. Today's economic uncertainty and ever-stiffening competition combined with changes in the market require a new approach also to product development. The shift in business models from traditional product manufacturing business towards services is clear. In this new economy of services, the success of the business is defined by the company's ability to understand its customers and their needs and the necessity of getting involved with the end-users has been realized. The increasing importance of customer oriented mindset in product and service development has generated new concepts and methods, like service design and co-creation, to help understand the needs and values of the customer and implement them into services and products.

The purpose of this thesis is to describe how the transformation from product focused company towards service orientation has been realized so far in the case company and how co-creation with internal users could improve the service development process.

This thesis is a single case-study, using mixed methods of qualitative research such as literature and documentation, semi-structured interviews, company database and participative observation. The research approach of this case study is deductive and exploratory; starting with a review of existing research and chosen theoretical frame work to test it in practice in the case company. The thesis is finalized with an analysis and conclusions answering to the research questions. Based on the findings, as an outcome of the study, concrete development proposals are presented for the case company.

Through the study, it was found that the transformation from product dominant business logic into service dominant business requires large-scale changes across the organization. This kind of transformation cannot be done without strong leadership and commitment of the whole organization. Based on the case company evaluation, it came evident that this kind of change will take time, and the company has to be ready to redefine its strategy and operations on the way. Well planned change management has a major role of maintaining the focus and motivation during the transformation. The key for a successful transformation, however, is people, the people who have adopted the service culture and have a strong belief in good service. Through the study, it also came evident that internal users (employees) could actually bring as much value to the development process as external customers, if not even more. Using employees in co-creation creates additional value, is an advantage to the service development process and should be utilized throughout the process.

Key words: Transformation, service development, service culture, co-creation, service design, customer centric, change management, motivation

TABLE OF CONTENTS

1 INTRODUCTION

1.1 The background of the study

Until recent days technology and efficiency in product development have outstripped customer needs in importance. However, this kind of strategy will not succeed anymore. Today‘s economic uncertainty and ever-stiffening competition combined with changes in the market require a new approach also to product development.

Services are no longer limited to service industries; on the contrary they represent a growing share of the world economy (Zeithaml, Bitner, Gremler 2009, 3). The shift in business models is clear from traditional product manufacturing business towards services. The product itself is not enough anymore when the competitors are able to create equal products and with lower costs. Thereupon additional services have started to develop around the products. The product will be evaluated not only by its physical essence or technical quality but also based on the services offered with it and based the end to end-user experience. (Lovelock & Wirtz 2007, 10-11; Deloitte 2006.)

After the turn of a new millennium manufacturing industries ranging from aerospace to high technology and diversified manufacturing have entered the service business. Deloitte’s industry report (2006) shows that already in 2006 services revenues represented an average of more than 25 percent of the total business. In many manufacturing companies the service business contributes over 50 percent of total revenues. Therefore traditional operating models and business paradigms are not tenable anymore. (Deloitte 2006; Zeithaml, Bitner, Gremler 2009, 8-10.)

In early 2000s Vargo and Lush (2004; 2006) introduced a new evolving logic called “Service-Dominant Logic” for marketing. Since then the logic has been used and developed further by numerous researchers (Edvardsson, Gustafsson, Kristensson, Magnusson, Matthing 2006; Prahalad & Ramaswamy 2004; Zeithaml et al.2009; Johnston & Clark 2008; Grönroos 2007; Payne, Storbacka, Frow 2007; Gummesson 2007). Marketing has shifted from goods-dominant view where tangible goods were the center of exchange, to service-dominant view where intangibility, relationships and knowledge are central (Vargo & Lush 2004, 2). The service-logic has been adapted not only in marketing but as a driver for the whole organization.

The rather new concept of service design is introducing new processes and methods addressing the functionality and form of services from the user perspective. Co-creation on the other hand is part of the service design work, by integrating the customer into the exploration and creation process. Co-creation also concerns the service offering; design integrates customers as active participants into the service delivery process, seeing them, not as passive consumers but active partners and cocreators of value. (Edvardsson et al. 2006, 2-3.)

As stated by many researchers (Edvardsson et al. 2006; Prahalad & Ramaswamy 2004; Zeithaml et al. 2009; Johnston & Clark 2008; Grönroos 2007; Payne et al. 2007; Gummesson 2007 ; Michel et al. 2007), the success of the business is now defined by the customers based on the company's ability to understand and fulfill the customer needs and values. If a company aims to be really customer-oriented, it needs to change its structures and modes of operation to support it (Johnston & Clark 2008). Operational changes usually affect also employees, and therefore it is important for the company to understand that people need to be motivated to change their routines and practices (Case 2005; Adair 2009).

The case company, one of the most successful companies of the last decades, has also encountered the changes and challenges in the industry. The company has rebuilt its strategy several times trying to transform from product manufacturing business towards offering the integral user-experience - including services - to be able to compete in the new era of business.

There is a wide arrange of researches supporting the importance of the change from traditional goods-dominant business logic to service-dominance, and more companies are adopting the new way of development. However, it seems that there is not much information presented in public how the theory has been adopted in a real life. How the change is really done and what kind of challenges the companies have encountered on the way?

1.2 Case-company introduction

The case company is a global and a multinational corporation, which has manufacturing and sales functions all over the world. The company has originally focused mainly on product manufacturing, but because of the market changes and competition it has renewed its strategy to cover also services. This kind of change is happening in most of the manufacturing and product focused companies.

In 2010, the case company was still one of the leading manufacturers in its industry. However the changes in the market during the last couple of years have made the company to change its strategy to enter the service business. Customers are no longer buying only a basic product with a certain brand and design; they are seeking for a solution. A solution refers to an entity of experiences including product and variation of services for their needs. For a traditional product manufacturer, this is totally new market, where also the business and operating models are different (Deloitte 2006; Zeithaml et al. 2009, 8-10).

Even in 2010 the company was still one of the leading manufacturers in terms of global sales, the competitors had started to increase their market share, and on some areas of business some of them have already overtaken the case company. The case company has to bring new competing products and services combined into one compelling solution to markets to be able to maintain the market shares.

The convergence of the technologies, services and hardware is reality. Consumers want complete solutions not just products, and technology should be invisible. Consumer relationships are the new unit of value in this converged industry as consumers "consume" services as they are created. These services are not created all by the product manufacturers but also through 3rd party partners. In the service business where the case company has entered, the development cycle is much faster than before and the company has tried to adjust to this new environment with a new company structure, renewed processes and company culture. (Paton & McCalman 2008, 6; Zeithaml et al. 2009, 8-10.)

1.3 Research purpose and research questions

The purpose of this study is to describe how the transformation from product focused company towards service orientation has been realized so far in the case company and how co-creation with internal users could improve service development process. The case company is undergoing a significant change from product manufacturing towards service business while the changes in the markets and increasing competition are not making it easier. Within the case company there have been previous studies, which highlight the importance of co-creation in service and product development; however the utilization of employees as internal users in co-creation has not been emphasized. These previous studies have been conducted for company internal use and are not publicly available.

The objective for the study is to describe the possible future opportunities and challenges for the case company to achieve its strategic targets with the focus on improving the service and product creation process.

The research problem of the study can be described as following: *"How a company with a history of product dominant business logic can transform into service dominant business"?*

The review of current service research literature and existing studies (chapter 2) aims to understand what the change factors which a company should consider are, and what kind of challenges the company may encounter.

The following research questions are defined based on the study purpose:

RQ1*: "What is the role of an internal user in the service development process and how it can be improved?"*

RQ2: *"What are the possibilities to improve the service and product development process through co-creation to support today's market requirements of customer orientation?"*

Through these research questions the study aims to investigate is there an advantage for the case company to co-create with its employees alongside external customers. As

an outcome of this study and based on the findings, concrete development proposals for the future are presented for the case company.

In this thesis the term “internal user” is referring to an employee of the company. The term “customer” is used to describe external users and the term “end-user” is referring to a user of the final product or service, and can be either an employee of the company or an external customer.

1.2 Overview of research methods and process

This thesis is a single case-study, using mixed methods of qualitative research such as literature and documentation, semi structured interviews, company database and participative observation. The research approach of this case study is deductive and exploratory; starting with a review of existing research and chosen theoretical frame work to test it in practice in the case company. The thesis is finalized with an analysis and conclusions answering to the research questions.

Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena (Skinner 2002). These methods are also commonly used to study business economics (Koskinen, Alasuutari, Pettonen 2005, 154). Qualitative studies include action research, case study research, textual analyses and ethnography (Skinner 2002). Usually the object of a case-study is a certain process, function, series of events or the history of a company (Koskinen et al 2005, 15).

To be able to structure the study in due order, it is important to understand the existing research and general theory for the subject. The theoretical framework of the study is a structure that can hold or support a theory of a research work. It presents the theory which explains why the problem under study exists. Research framework on the other hand helps the researcher see clearly the variables of the study by; providing a general framework for data analysis and it is essential in preparing a research proposal using descriptive and experimental methods. (Khan 2001.)

The theoretical framework chosen for this study is based on the service sciences research priorities defined by Ostrom et al. (2010). The framework and chosen research

priorities are presented in the beginning of the chapter 2 (Literature review of service development).

The research process and chosen methods of data collection and analysis are presented more widely in chapter 3 (Evaluating the theory in practice).

1.4 Outline of the thesis

The thesis starts with an introduction of the research topic, describing the background and the purpose of the thesis, the research problem with research questions and presenting the research methods on a general level in chapter 1.

Chapter 2 presents a review of the existing research literature in the context of service development and outlines the theoretical framework. The purpose of the literature review is to create the foundation for the case study and analysis. The review begins by explaining the evolution from product to service dominant logic, and continues with an overview of the current literature related to service culture, service design and co-creation. The chapter ends with a summary of the key findings, which will be used as a base for evaluating the case company.

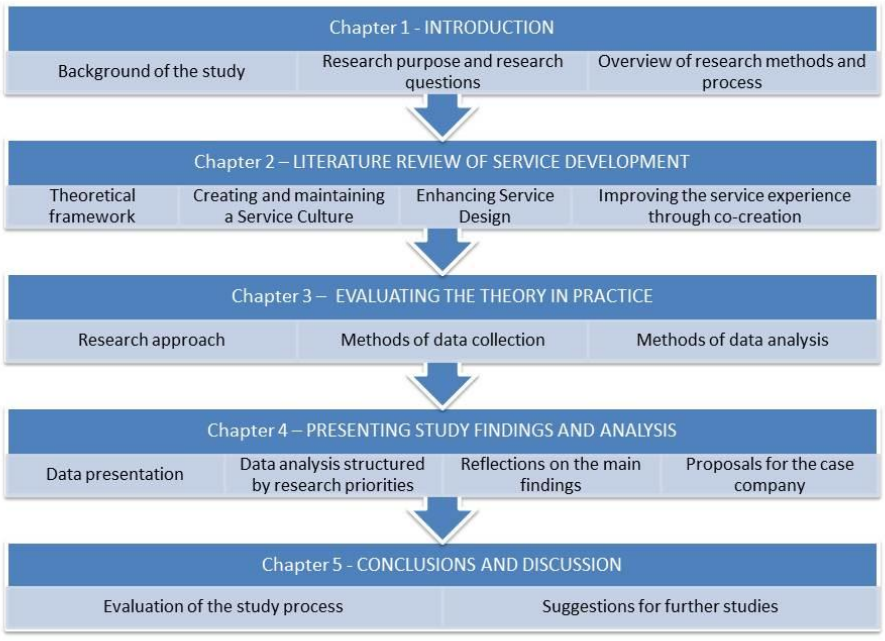


Figure 1 Outline of the study

Chapter 3 starts the empirical part of the case study, wit detailed description of the data collection and analysis methods and discussing the research process used in the study.

Chapter 4 continues the case study with the data assessment and analysis part. In this chapter all the research data will be reviewed and analyzed against the findings from the review of current service research from chapter 2. The chapter ends with a development proposal created for the case company based on the findings.

In the beginning of chapter 5 conclusions of the study are discussed including the personal learning process of the authors. The suggestions for future studies conclude the thesis.

2 REVIEW OF LITERATURE ON SERVICE DEVELOPMENT

2.1 Theoretical framework

Ostrom et al. (2010, 2) define service science as*: " an emerging interdisciplinary field of inquiry that focuses on fundamental science, models, theories and applications to drive service innovation, competition, and well-being through co-creation of value*." They suggest that, by improved service offerings, the service innovation generates value for customers, employees and other stakeholders.

In January 2010 Ostrom et al. identified a set of global, interdisciplinary research priorities focused on science of service. These consisted of 10 priorities, which were defined during the 18 months collaboration with business executives from 1000 companies. This makes the results a rather extensive and reliable framework for this field of science.

The purpose of the priorities is that they motivate service research by clarifying the areas of greatest value and potential return to academia and business. Through co-

operation the understanding of services can be enhanced, and new knowledge can be created to encounter opportunities and challenges faced today. (Ostrom et al. 2010,1.)

The 10 research priorities identified by Ostrom et al. (2010) are categorized under three broad aspects of business: strategy, development, and execution (figure 2). A fourth aspect of leveraging technology to advance service is supporting all the other priorities. By using all of these priority categories, the whole service development process can be covered from strategy to execution.

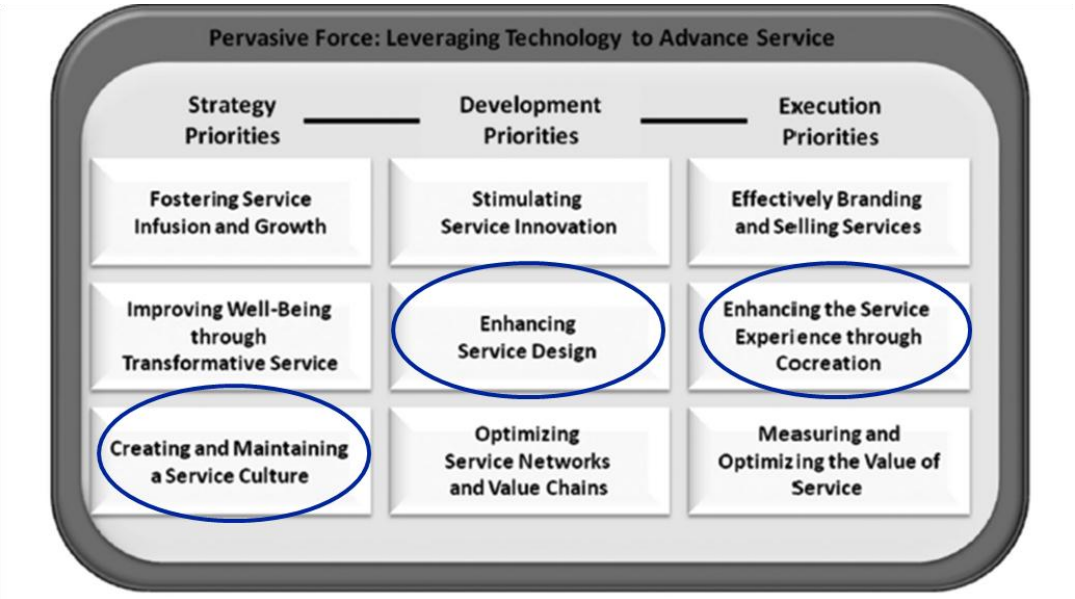


Figure 2 Service research priorities framework (Ostrom et al. 2010)

There are also other propositions of service research priorities, which can be used as a theoretical framework for a study. However, many of them concentrates only to a certain are of service research and there for are not offering a general view to the field of research. Vargo and Lush (2004), for example, present eight foundational premises for service-dominant logic, which are presented in figure 3 (below). They state that the orientation has transferred from company towards the consumer and academic focus is also moving from the output of exchange to the process of exchange.

	Foundational premises of S-D logic
FP1	Service is the base for exchange
FP2	Exchange is indirect exchange of skills
FP3	Goods are distribution mechanism for service provision the mean
FP4	Knowledge and skills are the main source of competitive advantage
FP5	All economies are service economies
FP6	Customer is always co-creator of value
FP7	Company can only make value propositions
FP8	Service-centered view is customer-oriented

Figure 3 Foundational premises of Service-dominant logic (Vargo & Lush 2004)

However, these foundational premises of S-D logic are originally concentrating on the particular issues related specifically to marketing. For this study, the theoretical framework required wider aspect to service research, and because of this the propositions of S-D logic were not seen suitable as a theoretical framework. However, the logic can be used to understand the change of mindset from products to services.

Another example of well-known frameworks in service research is the 'GAP' model. It is the conceptual model of service quality which Parasuraman, Zeithaml and Berry introduced first in 1985. This model has totally different approach to services than the FP model of Vargo and Lush. It presents the concept of service quality and factors affecting it. The gap model identifies five organizational gaps within the process of service design and delivery that affect the quality leading to unsatisfied customers. (Parasuraman et al.1985.) Because this framework concentrates mainly on service quality in light of customer expectations and company delivery, it was also seen too narrow as a framework for this study and not fully concentrating to required areas of service research.

As case study focuses on the science of service and business economics and if considering the case company to be studied, the research priorities of Ostrom et al. (2010) were seen suitable base for the theoretical framework of this case study. The authors of this thesis feel that first of all it offers the general view to the research topic. Secondly these priorities were defined together with a large number of companies and their leaders, which gives a real life context for the priorities. Thirdly these priorities are ra-

ther new and there for aligned with the current economic situation. All of these 10 priority areas include several additional topics and using all of them to frame the theoretical framework for this study would be too extensive and time consuming. Therefore, based on the research questions and study purpose the most suitable priority from each category of business is chosen. These priorities are marked with a blue circle in figure 2. However, to be able to cover all areas of the business in light of service creation process priorities are needed from each of the three groups presented in figure 2. These groups are strategic, development and execution priorities.

The case company is going through the transformation from product manufacturing to services business, therefore developing a service culture and mindset were seen as key areas to study from strategic priorities. Therefore, the best suitable priority from the strategic priorities is the third priority, 'Creating and maintaining service culture'. The two other groups (development priorities, execution priorities) are chosen on the basis of the goal of the study, which is to improve the service creation through co-creation with internal users. Within the service business, the traditional development models and processes of product development are not directly suitable and more collaborative work across shareholders (customers, information technology, marketing, and engineering) is needed. There for the suitable priority for the development area is 'Enhancing service design'. From the third group of priorities (execution priorities) 'Enhancing the service experience through co-creation' is chosen as the most suitable one. This supports the value proposition of S-D logic where value is not anymore created and delivered only by the company but as co-created by companies and customers.

With these priorities, the theoretical framework covers all the key concepts of the study and the whole service development process from strategy through development to execution. The chosen priorities are used also to structure the study throughout the report. These titles are used to create the connection to the theoretical framework in the literature review of current research, data assessment and analysis and also in the conclusions part.

- Strategic Priority - Creating and Maintaining a Service Culture

- Development Priority – Enhancing the Service Design

  .

- Execution Priority – Improving the Service Experience through co-creation

In the following chapters the theoretical context is presented to support the case study according to the chosen research priorities. The first chapter 2.1.1 (Recent changes in manufacturing industries) discusses the recent changes affecting the markets and how services are a growing field of business also in traditional manufacturing industries.

Next chapters 2.1.2 (Defining services) and 2.1.3 (From goods-dominant to service-dominant logic) discusses the concept of services, how the changes on the market have made companies to change their business and how the service-dominant logic has gained ground also on the traditional product business and development.

The chapter 2.2 (Creating and maintaining service culture) presents the main factors needed for the change from goods-dominant to service-minded business model. After the change factors, the importance of company culture and service culture and what is required to create and maintain the service culture in the company is discussed.

The chapter 2.3 (Enhancing service design) moves from company and strategy level down to service design processes, presenting how service-dominant logic affects the service design and innovation. Also the role of customer involvement and user information in service development is explored.

In the chapter 2.4 (Improving the service experience through co-creation) the terms of value and co-creation are opened and the review of current research around value co-creation with a customer is presented. Different roles of the customer in development process are discussed and how employees (internal user) can be utilized in service development alongside with external users (customer). The importance of change management and leadership is presented and how employees can be motivated to take part in the service development.

The literature review of current service research is summarized in chapter 2.5.

2.1.1 Recent changes in manufacturing industries

Because of the ‘Service revolution’, as Deloitte (one of the global financial and industry consulting companies) describes the change happening in the markets, the traditional product manufacturers are forced to rethink their strategy and business. Some companies such as Siemens AG Medical Solutions have even made the service business core of the corporate strategy. This means that they design the service business around customer requirements in order to drive customer satisfaction, loyalty and business performance. Based on the Deloitte’s industry analysis (2006) most companies are struggling hard to build the foundation for service excellence. Their business - competing largely on product designs and strong brand - has been undermined by a new business model where value lies in content and ease of access to services. Although there is still a huge conventional business in making and selling the basic product, average prices in that business are falling as the market reaches a saturation point. These product manufacturers need to push hard for scale, put huge pressure on costs, outsource more raw-material production, and further open up operating systems they use. As manufacturers are facing increasing pressure from competitors who can provide products and services at significantly lower costs, the link to the final customers will become the ultimate key for competitiveness. (Deloitte 2006.)

From the business opportunity point of view, it can be seen that for many of the world’s largest manufacturer’s aftermarket service operations define the business. For example for Rolls-Royce, one of the world’s largest jet engine and gas turbine makers, service revenue is about 55 percent of their total revenues. Another of the companies mentioned is Xerox Corporation, which is reporting post-sale and other service revenues amount to more than 65 percent of total sales of their 16 billion US$ business. (Deloitte 2006.)

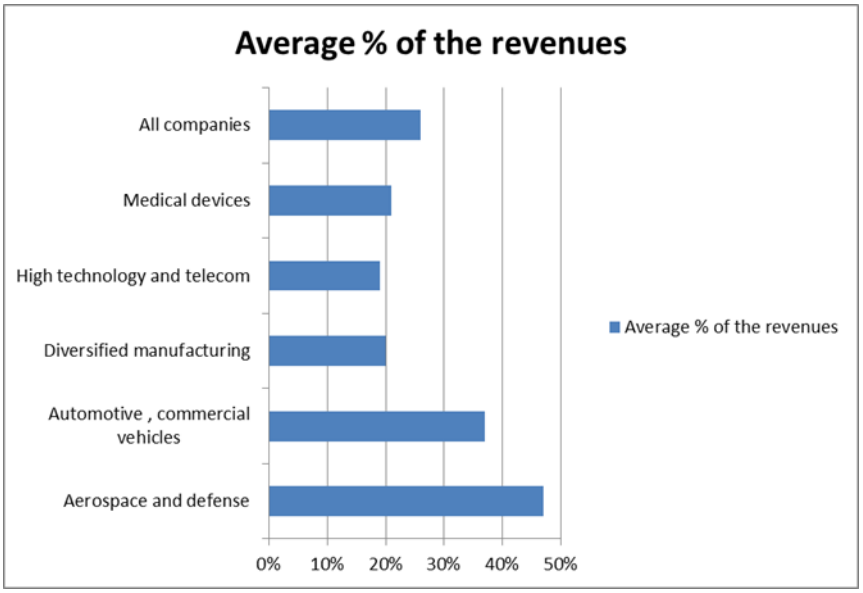


Figure 4 Average percent of revenues received from service business (Deloitte 2006)

Deloitte's Management Benchmark survey (2006) also shows that the average percent of revenues received from service business was 26 percent across the industries (Figure 4). They also report that in almost one fifth of the companies, the service business accounted for 50 percent or more of total revenues.

With profitability and growth levels in many companies far exceeding the main manufacturing business, it is evident that the service revolution in global manufacturing is strongly on-going. Some of the companies have enough insight into the challenges and opportunities for driving profitable growth through services, but it requires the ability to develop the right strategies, identify the right priorities and invest effectively in the service business. Companies need to be able to understand their customers and competitors adapt new business models and be able to create value for both customer and for the company. (Zeithaml et al. 2009, 8-10; Deloitte 2006.)

2.1.2 Defining services

The size of the service sector worldwide is rapidly growing, and evolution to the service-dominated economy is on the way. This rapid growth is enabled by business trends, enhanced technology, globalization etc. What are services then?

Vargo and Lush (2004, 2) define services: "*as the application of specialized competences (knowledge and skills) through deeds, processes and performances for the*

benefit of another entity or the entity itself." Zeithaml, Bitner and Gremler (2009, 4), on the other hand, defines services as economic activities with intangible output, which are consumed simultaneously with production. These activities provide added value for the purchaser, they continue. Different researchers define services from bit different angles; however, the following characteristics of services are usually mentioned the main ones separating them from products (Jauhari & Dutta 2009; Lovelock & Wirtz 2007).

Intangibility – Jauhari and Dutta (2009) describe the intangibility of services being rather performances than object, because they cannot be seen, felt, tasted or touched like goods. In case of intangibility Lovelock and Wirtz (2007, 16) approach the same subject by presenting that, for services, intangible factors dominate value creation when compared to products.

Inseparability – can also be described with simultaneous production and consumption. This means that usually services are produced and used simultaneously and cannot be stored. (Jauhari & Dutta 2009; Zeithaml et al. 2009, 21; Lovelock & Wirtz 2007, 20.)

Variability (heterogeneous) – Zeithaml et al. (2009, 21) explain that as the service is mostly human interaction it is very difficult to have standardization. They continue that employees interacting with the customer will vary from day to day and customers will be different every day. Customers can be co-producers of service and be part of the service experience (Lovelock & Wirtz 2007, 19-20).

Perishability - means that services cannot be stored after production and usually they cannot be inventoried (Jauhari & Dutta 2009; Lovelock & Wirtz 2007, 16-17).

In addition to these characteristics in case of services time plays a great role of importance and the distribution of services can be done also via nonphysical channels (Lovelock & Wirtz 2007, 17, 21).

2.1.3 From goods-dominant logic to service-dominant Logic

In early 2000s Vargo and Lush (2004; 2006) introduced a new, evolving logic called "Service-Dominant Logic" for marketing. Since then, the logic has been used and de-

veloped further by numerous researchers (Edvardsson et al 2006; Prahalad & Ramaswamy 2004; Zeithaml et al 2009; Johnston & Clark 2005; Grönroos 2007; Payne et al 2007; Gummesson 2007). Marketing has shifted from goods-dominant view where tangible goods were the center of exchange, to service-dominant view where intangibility, relationships and knowledge are central (Vargo Lush 2004, 2).

The figure 5 (below) illustrates the differences between goods-dominant (G-D) logic and service-dominant (S-D) logic. Vargo and Lush (2004,7) define a group of factors peculiar to S-D logic. With these factors, they describe the shift from exchange of operand resources (tangible) to operant resources (dynamic resources acting upon other resources). They see that S-D logic abandons the traditional classification of goods and services where service would be an alternative form of products. Goods are viewed as tools that serve as alternatives to service provision. (Vargo & Lush 2006, 43-55.)

	Goods-dominant logic	Service-dominant logic
Primary unit of exchange	Physical goods (operand resources)	Knowledge and skills (operant resources)
Role of goods	Operand resources and end-products	Intermediate "products" used by customers as means in value creation process
Role of customer	Recipient of goods	Co-producer of service
Meaning of value	Value defined by producer, embedded in goods	Value perceived by consumer based on value in use
Customer interaction	Customer interaction is related to exchange of goods and resources	Customer is active co-producer
Source of economic growth	Wealth is gained from tangible resources and goods	Wealth is gained through exchange of knowledge and Skills

Figure 5 Goods-dominant versus service-dominant logic (Vargo & Lush 2004, 7)

One of the key aspects of S-D logic is that the customer is always a co-creator of value and company can only make value propositions. This has been emphasized by most of the researchers (Edvardsson et al. 2006; Prahalad et al. 2004; Zeithaml et al. 2009; Johnston & Clark 2008; Grönroos 2007; Payne et al. 2007; Gummesson 2007; Michel et al. 2007) in the field of services. They also highlight the importance of knowledge as a source of competitive advantage and essential factor of differentiation.Other founda-

tional factors stated by Vargo and Lush (2006) are; service is always exchanged for service and service-centered view is customer-oriented. Lately, also dissenting opinions have been raised about customer being always the co-creator of value.

Grönroos (2011, 4-6) challenges the proposition of Vargo and Lush. He sees that the concept of customer's value co-creation is not explained clearly enough by Vargo and Lush. It is unclear whether it means customer's creation of value-in-use, or does value creation refer to a more comprehensive process, where the customer's creation of value-in-use is one part only, he continues. Instead of only following the proposition of customer's being always the co-creators of value Grönroos (2011, 23) states:*"What a service perspective on business (service logic) uniquely offers as logic for value creation is not that customers become co-creators of value, but rather that firms when performing as service providers get opportunities to become co-creators of value with their customers"*. According to him the customer as a user is creating value for himself by integrating resources provided by the firm (Grönroos 2011, 18). Gummesson (2007,16) also notes that instead of one party centricity one should move to two-party centricity, which involves both supplier and customer.

When the need for a change from goods-dominant to service-dominant logic is initiated in the company, the change requires significant changes throughout the organization (Paton & McClman 2008, 9). The following chapters describe what is required to enable the change.

2.2 Creating and maintaining a service culture

As also the industry analysis show, many companies are moving from a product focus to a services and solutions model that either leads or augments the product sale (Deloitte 2006). In many cases, a long product history will be deeply embedded in the culture of the company. The overarching question is how to develop and sustain a service culture and mind-set in traditional product companies. Especially, it is valuable to understand how to adapt a service culture. Can a company transform its employees to 'thinking' and 'acting' services rather than products, or will it be necessary to hire new employees? Will it require acquiring companies that already have an established service culture? After all, the customer satisfaction and employee satisfaction go hand in hand. (Mohr & Bitner 1995; Zeithaml et al 2009, 348-351, 354.)

2.2.1 Company culture and values

Company culture can be defined in many ways. Johnston and Clark (2008, 483) conclude that organizational culture is intangible and hidden under the surface of the organization. They also think that the effects of the culture are not always apparent because there are many unspoken aspects to it. Grönroos (2000, 356) notes that culture is a common framework explaining why people do things in a certain way, share same way of thinking and value similar achievements and routines. He continues that company culture is shared values and beliefs that dwell deep in the company, providing members the feeling of being part of organization and guiding how to behave. Values are always part of the culture, and although they can't be seen all the time, they are always there (Grönroos 2007, 420).

Strong shared values have a positive impact to the performance of the employees. Employees dedicate themselves more to tasks and ways of working which are supported by the shared values. Outcome is better as people are motivated. Sometimes strong values may become a problem. This would be the case if the shared values are outdated and not in line with the current strategy, or if they are too strong and cause resistance for change, which prevents organization to respond external challenges. (Grönroos 2000, 361.) Johnston and Clark (2008, 484) also state that it is vital to understand the connection between company's unconscious beliefs and service concept. They note that if there is a need to alter the service concept remarkably, underlying culture might direct back to the original, hindering the successful implementation.

To understand company culture a bit deeper Johnston and Clark (2008, 484) present Schein's model (2004) of organizational culture, which is based on the assumption that organizational culture has many levels or layers to it. They also state that one cannot presume that organizational culture is only what can be seen, but the visible part is only the tip of the ice berg.

Schein's model (figure 6), which Johnston and Clark (2008, 484) refers to, presents three levels of organizational culture; artifacts, espoused values and basic underlying assumptions.

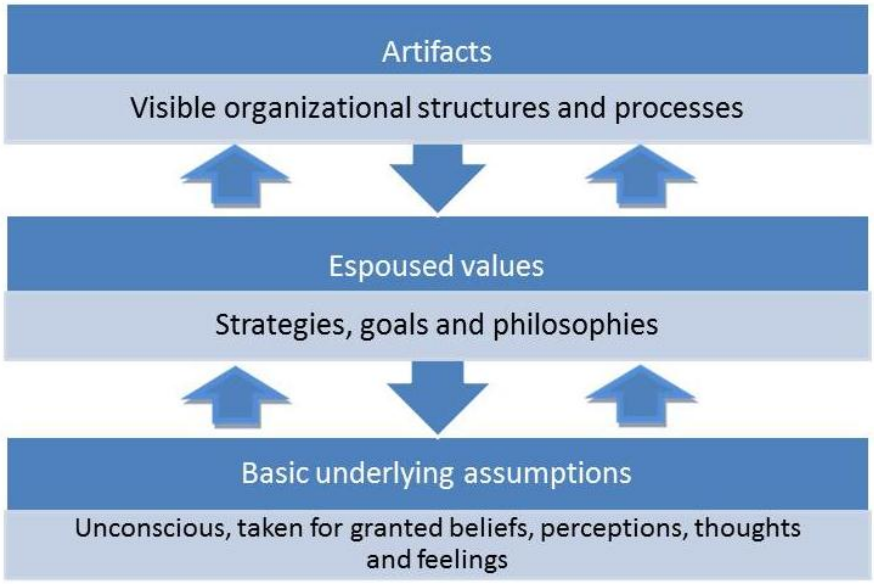


Figure 6 Schein's Levels of organizational culture

In other words, the Schein's model presents that organizational culture has the visible organizational structures and processes which are guiding the work on a concrete level. In addition to them strategies, goals and philosophies are showing the aimed direction for the organization. The third level is the invisible part, which is the most related to one's own values, beliefs and feelings.

Company culture can be viewed also as the climate of the organization. This climate is dependent on the fact that how relationships between people and different organizations work and what employees believe is important in the organization. For example, service company climate needs to support employees who serve customers to develop positive atmosphere for giving service. In order to achieve service-oriented climate, employees need to feel that guidelines, management and rewarding system are supporting the idea that giving good service is important. Therefore, company culture has an enormous impact on how service-oriented the company is. Service culture, as part of the company culture, defines the depth of service orientation. (Grönroos 2000, 357.)

2.2.2 Service culture

Grönroos (2000, 360) defines service culture to be a culture where good service is valued and where providing good service, to both internal and external customers, is a common way of life and one of the most important values. Johnston and Clark (2008, 483) state that service managers need to create the ability to augur the influence of culture in order to prepare for service improvements.

Grönroos (2000, 358-359) observes that, in the service business, strong culture enlarging appreciation for good service and customer orientation is the utmost important. He continues that this is due to service production and consumption; service production can't be standardized as easily as production line because of the human interaction in the service encounters. According to Valminen (2010) customers and their behavior can't be predicted, and that is why strong service culture is needed to guide employees in the unforeseen situations.

Åkesson, Skålén and Edvardsson (2008, 75) define service-orientation a set of organizational policies and procedures meant to boost the creation and delivery of service excellence. According to Grönroos (2000, 360) service-orientation can be characterized as shared values and attitudes that impact people in the organization in a way that interactions internally and with customers are perceived favorably. He states that internally a service-orientation can be anticipated to improve the internal climate and the quality of internal services. Externally a service-orientation should enhance good perceived quality for customers as well as strengthen relationships with customers and other parties, he says.

Figure 7 (below) shows the effects of service-orientation within employees. It enhances the positive process in a company. Service minded employees who take good care of their customers will do their utmost to find best solutions for their customers or recover the situation if something in the process has gone wrong. Customer perceived quality is one of the important components of profitability, so service orientation improves quality which in turn improves profitability. (Grönroos 2000, 360.)

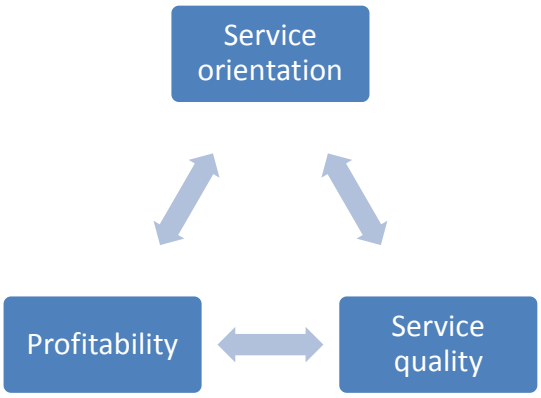


Figure 7 Effects of a service orientation (Grönroos 2000, 360)

2.2.3 Internal marketing - maintaining service culture

The term 'internal marketing' was first used in 1970s and was initially associated with the marketing of services (Kotler, Keller, Brady, Goodman, Hansen 2009, 770). Lately, the term has been widely used to describe the practice of turning many of the established techniques of marketing inwards by focusing on employees (Palmer 2005, 439). Grönroos (2007, 406) describes internal marketing as an umbrella concept of various internal actions and processes, which target to develop both service-orientation and service mindset.

Grönroos (2007, 390) lists main objectives for the internal marketing to maintain service culture:

- Ensure that management promotes service mindset and customer engagement activities towards employees.
- Enhance internal relationships within the organization.
- Support effective communication and feedback within the company.
- Market new products and services as well as marketing campaigns to employees before external launch.

Key issue for the internal marketing in maintaining service culture is the management support. Employees are more satisfied when managers try to solve customers' problems instead of executing rules and regulations. (Grönroos 2007, 390-391.) Also, Lovelock and Wirtz (2007, 336) emphasize that leadership and internal marketing are key

factors for creating and maintaining a service culture. The communication from management to employees is crucial especially in large, global companies to keep everyone up to date on company information. Through internal marketing efficient and good service delivery can be ensured, they state.

To maintain a service culture company needs to create and maintain also indirect control within the organization. Indirect control means that the company should create a common feeling to employees that service should guide their thinking and behavior. This requires a lot of motivation and inspiring leadership methods from the management of the company. Internal marketing is a continuous process, and it will require some time before the service culture and service mindset is fully embedded into the company culture. (Grönroos 2007, 390-391,406.)

Developing a service strategy

Part of the service culture is service strategy. Hollins and Shinkins (2006, 14) state that strategy is about how company will attain its mission and goals. They continue that strategy will serve as a roadmap perceiving how company is going to achieve these goals and what actions to be taken are.

According to Johnston and Clark (2008, 460) service organizations need to have a unified strategy to prevent non-alignment in activities and decisions. They define service strategy to be set of plans and policies, which will enable the company to achieve its targets. Grönroos (2000, 362) states that requirements for good service are strategic. He presents following strategic requirements: organizational, management, knowledge and attitude that should be fulfilled by developing a service-oriented strategy. This according to him denotes that the management of the company truly wants to establish service-oriented organization.

The business mission is the corner stone for creating service strategy. Service strategy includes mission in service vision. This in turn, should tell that a service orientation is to be achieved. Nonetheless, a service strategy demands that service concepts connected to business mission and the strategy should be defined. Grönroos (2000, 362-363.) and Johnston and Clark (2008, 461) note that service concept should identify what should be accomplished and enable the company to focus on creating value to customers. However, Grönroos (2000, 363) continues that service concept should also

define to whom, how and with what resources the strategy is to be executed; otherwise employees will not know what they are expected to do.

Human resources are a vital part of the strategic requirements towards creating a service culture. Recruitment process, career paths and rewarding are important elements of service culture. Good service needs to be rewarded, and achievements should be measured so that employees understand the importance of service. (Grönroos 2000, 363.) Johnston and Clark (2008, 460) present that if the front-line service staff of the company are not committed to targets of the organization it will have an unfavorable effect for the whole company. Rewarding and motivation are discussed separately in chapter 2.4.2 “Change management and Leadership” as they are important factors in managing change in the organization.

Developing the organizational structure

One of the conditions for good service and to have a service culture is to have sufficient organizational structure developed. This means that all levels of the organization need to be fueled to the service process in order to accomplish high quality services and maintain it. Usually, a service-oriented firm is relatively flat in the organizational structure. Excellent service is delivered by employees who do not have to defend themselves in their daily work with customers. Positive attitude is created by organizational culture matching with the strategy and values. Supportive culture is self-renewing and encouraging finding new ways of thinking and behaving. (Grönroos 2000, 363-364; Johnston & Clark 2008, 403-405.)

Grönroos (2000, 364) and Johnston and Clark (2008, 405) both suggest that to create good service, front line employees working with customers need to be able to make decisions. They note that these customer contacts and support personnel should get more responsibility, and they are expected to work more independently. Grönroos (2000, 364) states that this doesn’t mean that managers are not needed anymore; their role will change from supervising to more coaching and leadership. Beside creating customer value and delivering financial contribution, managers should enable employees to achieve their goals and help the organization to develop future intent (Johnston & Clark 2008, 29).

Another area that organizational development touches is the operational work. In order to achieve good service, ways of working needs to be simplified and information breakdowns should be avoided. In this way, customers see such development as better quality of the service. Also, employees feel more motivated when routines and work flows have been simplified. Employees are committed to the organization as they are involved in developing the process of service development. Information technology can offer many opportunities to enhance information flow and operational systems. (Grönroos 2000, 364; Johnston & Clark 2008, 405.)

Developing leadership for service culture

A key enabler to great service and service culture is the true leadership in all levels of the organization. To be able to support and develop a world-class organization clear leadership is needed. Communication up and down the organization is promoted by listening to each other. Good leadership requires investments in personnel, systems and training. (Johnston & Clark 2008, 403.) Management prerequisite for good service is achieved by service-oriented leadership. Managers in all level must be supportive and attuned for their employees. Management support is important if service-oriented values are to be shared with employees, strengthened and made an integral part of the organization. (Grönroos 2000, 364.) Leadership and management are discussed in more detail in chapter 2.4.2 “Change management and leadership”.

Based on the previous chapters, it can be concluded that successful service culture and strategy require that all levels of the organization understand and are engaged for keeping the focus in customers and sharing the service mindset in all their activities.
The next chapter explores how these elements affect to service design and service development process.

2.3 Enhancing service design

Service design is interlinked to service strategy, service innovation, and service implementation. It brings service strategy and innovative ideas to life. Ideally, service design is a collaborative, cross-functional activity crossing different functions in the company. Efficient service design cannot be separated to one function of the company. It includes managing of clues, places, processes and interactions that together create service ex-

periences for customers, employees, and other stakeholders. (Ostrom et al. 2010; Lockwood 2009; Miettinen and Koivisto 2010.)

Service design can have a notable impact on company's key metrics such as costs, revenue, brand perceptions, customer satisfaction and loyalty and, in addition to the employee satisfaction and loyalty (Ostrom et al. 2010). The core of service design and innovation is discussed in the next chapters trying to find answers to questions like; "How to engage customers and employees in this area?" "How can organization empower employees to have a hand in owning and evolving service if they do not always have a direct role or full responsibility?"

2.3.1 Service design and innovation

Service design is a rather new concept, introducing new processes and methods to service providers. It addresses the functionality and form of services from the user perspective. Service design targets to ensure that service interfaces are useful, usable, from the customer's point of view and effective, efficient, from the supplier's point of view. Service design connects the expertise developed throughout the last decades in marketing. It also goes much further than design- and marketing related foundations by focusing on service-specific challenges. (Mager 2006, 30-35.)

Compared to traditional product design service design includes complexity and several new touch points, which are different from a traditional product design. The role of people is central for both product and service design. However, the difference between these two is that product design is usually about the object and service design is about the journey. Therefore, designing for services requires a slightly different mindset than more stable product design. (Lockwood 2009,15.)

Design thinking has the capability to develop services, solutions and future service experiences. It is a combination of multidisciplinary teamwork where prototyping is a mean for dialogue and where interaction between functional and emotional connections happens. However, there is a need for new methods in design management, need of new touch points and relationships with customers, new technologies and not least new business models. (Lockwood 2010,15; Miettinen & Koivisto 2010, 60.)

Mager (2009, 35-37) presents the following propositions as the basis of service design presented in figure 8:

Proposition	Description
Services should be looked as products	Good design should have a connection to a good strategy, including positioning and portfolio management
Focus on the customer benefit	Rethinking the organization might be part of service design process to enable processes that focus on delivering benefit to a customer.
Diving into customers' world	Service design explores in depth the world of emotions and experiences, in larger systems of relationships and interactions.
Design and experience	Learning from experience and interaction design is important.
Creating perceivable evidence	Transforming the invisible service into perceivable evidence along the touch points of the service experience.
The big picture	Services are embedded in larger systems of relationships and interaction, service experience starts before and continues after the customer contacts the service provider.
Going for standing ovation	In many service encounters success depends on people, the service performance needs to be supported by setting that serves the needs of the participants
Flexible standards	The right balance between standardization and flexibility needs to be defined, 100% standardization in services is not possible.
A living product	Services need to be designed for learning and development; customers, employees and environment need to be part of the service system.
Enthusiasm	The corporate culture has a major impact on the quality of delivered service. Observation and support for changing the existing culture is part of the design process

Figure 8 Propositions for service design (Mager 2009, 35-37)

Everything starts with caring about the customer and understanding their needs. Innovation process begins with understanding what the customer wants, and ends with the

creation of what they will buy. Design thinking is in the role of guiding the research process to concentrate on desired output and helping to identify the unmet needs of the customer. (Lockwood 2010, 84-93.) According to Miettinen and Koivisto (2010, 61) design thinkers have the capability to feel empathy, discover things that others fail to notice and utilize this as a basis for innovation.

Service design offers various innovative methods available that are based on design research and design thinking especially for developing the service design process. It enables value propositions to be prototyped early to let emerging propositions to be expressed, explored and changed with customers and other stakeholders in a more concrete and emotional way. The human-centered design process focuses creating unique value propositions for the customer and developing usable, functional and desirable services. The future challenge in the area of service design is to find new ways that users can participate in the service development processes and in creating new kinds of value propositions. (Miettinen & Koivisto 2010, 76; Ojasalo & Ojasalo 2010, 103.)

Co-creation is part of the service design work in two ways. By integrating the customer into the exploration and creation process, external expertise can be brought in design of services. Co-creation also concerns the service offering, design integrates customers as active parts into the service delivery process, seeing them, not as passive consumers but active partners and co-creators of value. (Mager 2009, 38.)

The best way of ensuring the quality of designed service is to involve people, future users of the service, to the design process. When users are made part of the design team, the focus shifts from the perfection of each touch point to the overall service experience people get when they interact with the service. (Mager 2009, 38; Lockwood 2010, 174.)

Service innovation is also an integral part of the service design process; the next chapter presents the common currency of innovation in services.

Service innovation

Vicky Pryce, Chief Economic Adviser and Director General, from Economics Department of Trade and Industry (UK), describes innovation with a following definition: "*Innovation is the successful exploitation of new ideas and this definition applies to all firms in the economy and is equally relevant to services innovation"* (Pryce 2007).

Innovation is also defined to be one of the five drivers of productivity growth alongside skills, investment, enterprise and competition. Innovation in manufacturing usually means R&D costs and a technological breakthrough as an outcome. In services innovation should begin from customers' unmet needs. Companies, which are able to incorporate customer insights and creativity into service innovation will be the ones to stand out from the competition. (Ostrom et al. 2010, 12-13.)

According to Hämäläinen and Lammi (2010, 191) the concept of innovation is expanding and more often new ideas are sought outside the realm of traditional, technology-oriented product innovation. Service innovation is most importantly a process that requires a disciplined approach to recognize and implement the brightest ideas. Service innovation is primarily based on developing customer behaviors and their expectations. Customers and users are a vital source of information, innovation and creativity. (Ojasalo & Ojasalo 2010, 101-102.)

Following a similar viewpoint, Professor Pim den Hertog from the Amsterdam Business School (2010) describes service innovation with the following words: *"A service innovation is a new service experience or service solution in one or several of the following dimensions: new service concept, new value system/ business partners, new customer interaction, new revenue model, new organizational or technological service delivery system"*. He continues that the company needs certain capabilities for managing service innovation, which are:

- **Signaling user needs and technical options** – Intelligence capability, it is about detailed understanding of customer needs and technological trends. Understanding what users are really doing with the product or service.

- **Conceptualizing and service design** – Service design capability and capability to develop a rough idea into viable service offering. It is important to prototype the service as early as possible.

- **Bundling and unbundling** - understanding “the big picture” and capability to think modular service elements which can be bundled, enriched or stripped down.

- **Co-producing and orchestrating** – capability to manage service innovation across company boundaries and manage the resulting networks and alliances, partners.

- **Scaling and stretching** – capability to introduce a new service on a large scale in a uniform way and stretch the core services offering.

- **Learning and adapting** – meta-capability to reflect on and learn from current service innovations, experiments and their management.

In general companies develop new and innovative services to enhance their competitiveness or to react to changing customer needs. New technology and changes in legislation also offer new opportunities for innovation. A service concept can be labeled as an innovation when it considers all viewpoints related to the service, ranging from subcontractors and collaborators to marketing and sales. A good service innovation has unique influence on user behavior. (Hämäläinen & Lammi 2010, 190-191.)

The concept of open innovation is the future model for companies to be successful. It is vital to have of an innovative business model alongside the innovative product offering. Because of lack of the successful business models, many promising innovations of research lab never see the light of day. On the other hand, even the ideal business model does not promise that the product or service will be adapted by the customers. In closed innovation model companies have relied mostly on their interpretation of the customer need and developed their innovation secretly inside the company until it is brought to market. It may be relatively easy to predict the potential of a technical breakthrough in terms of the products it enables, but it is almost impossible to predict the way these products will shape the social practices. In today’s world of rapid change leading to new, potential markets, companies need to improve their ability to experiment with new technologies in new markets. No company can afford to rely only on its

own ideas. The concept of open innovation means that valuable ideas can come both inside and outside of the company. In practice, it means letting the ideas both flow out of the corporation in order to find new sites for their monetization and, on the other hand, flow into the corporation as new offerings and new business models. Today's networked world allows us to bring customers into the lab as co-producers. This opens the possibility to utilize not only the customers' explicit knowledge, but also the knowledge available when they start using the prototype. Customer information gathered this way helps to avoid the serious flaws, misleading instructions, and missing functionalities before the product or service is brought to market. (Chesbrough 2006, 10-19, 43, 63.)

Also, Brown (2010) suggests that customer feedback can be easily gathered through internet with services like support forums, public sites or blogs on product innovation. He claims that the best new ideas and innovations can be found through customer communities, competitors, formal open innovation and tournaments. However, he thinks that the biggest challenge is to be able to filter all the ideas.

This chapter introduced that to be able to improve the service design, involving customers in innovation and design process is essential. Transformation from closed innovation into open innovation and utilization of different methods in service design can help companies to cope with the challenges in today's markets. The following chapters present the characteristics of service development process and what advantages user information brings to service development. After these subjects, the role of employees as an asset in service development is discussed in chapter 2.4.1.

2.3.2 Service development process

The decision to start developing new service is one of the most critical ones for a company after evaluating the service portfolio. The ability to develop new services is seen one of the main drivers to succeed in the market. Because of this development process of new services or products has gained a lot of attention and many new models are available in the research literature. (Avlonitis & Papastathopoulou 2006, 82.)

One of the most commonly used new product development model was proposed by a consulting firm Booz, Allen and Hamilton Inc. in 1968. It includes six process phases presented in figure 9 (below).

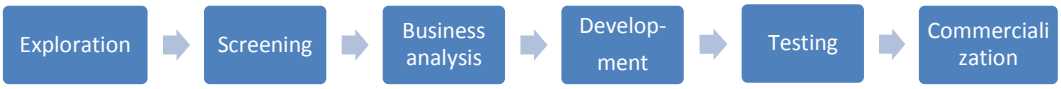


Figure 9 The basic product development model of BAH (Avlonitis & Papastathopoulou 2006, 83)

In this model, the exploration phase includes searching for new service or product ideas to meet company targets. During the screening phase, these ideas are quickly evaluated to find the most suitable ideas for further analysis. Business analysis evaluates the business case for the idea, product features and for a development program. In development phase, the idea is implemented and then tested during the testing phase to verify the business case. In commercialization phase of the process, a full-scale production and market launch will take place. This basic model has been modified further during the past years by researchers and companies. (Avlonitis & Papastathopoulou 2006, 83.) As an example, a very similar five stage model is presented by Yang and El-Haik (2009, 61) including the ideation phase, followed by concept development, design, production and finally sales phases.

Service development process compared to product development process needs to focus more on certain activities due to characteristics of services. These characteristics such as intangibility, perishability or simultaneous production and consumption require a different approach during the process. (Avlonitis & Papastathopoulou 2006, 85.) Yang and El-Haik (2009, 72-73) describe the difference between these two processes through the visibility of the result. What is produced in product manufacturing is usually very clear, a ready designed product with a known value. In case of service development, the value of the product is unknown until it is launched in the market. They also highlight the different role of rework in these two processes. In product manufacturing the rework is seen as waste of time and resources, but for services, the iterative improvement of process or design is quite generalized they conclude. However, the recent process models of both product and service development processes include similar structure. Both models consist of phases with a review and acceptance point before entering to the next phase (figure 10).

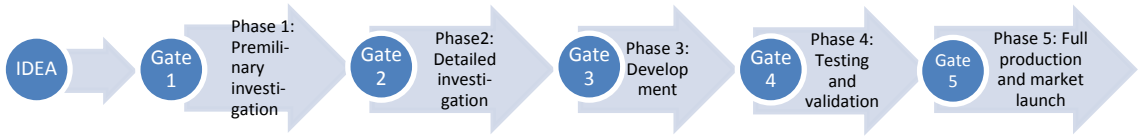


Figure 10 Overview of a third generation development process (Avlonitis & Papastathopoulou 2006, 90)

In this model, the process starts when the idea is picked up by the portfolio management of the company. The main goals for portfolio management are maximizing the value of the portfolio, achieving balanced offering and creating a strong link to strategy. The service portfolio is on other words based on the strategy and new ideas are picked up for feasibility study in Gate1. These ideas are screened against the strategy, and the feasible ones are chosen to more detailed investigation in Phase 1. In detailed investigation phase deeper evaluation is conducted for the idea; technical feasibility and business analysis are created. The concept is created and tested also during this phase. Phase 3 is development phase includes the actual implementation of the concept. Usually this phase is the longest and the most critical one in the process, as it combines the technical feasibility and customer satisfaction. Also prototyping is done during this phase, which may be difficult for services due to their intangibility. The next phase of the process is testing and validation. Testing can include both testing on alpha and beta level. Alpha level testing is conducted inside the company, and beta testing takes place on the intended market and users. In addition to technical or usability testing, market testing is important to ensure the marketability. The final stage in this process is the market launch including the full scale production and marketing activities. (Avlonitis & Papastathopoulou 2006, 98, 101 – 129.)

Today's service development process aims to deliver more value by using fewer resources and by capturing the voice of the customer. The target is to produce high quality with lower costs, by utilizing the most appropriate technology and design, maintaining the speed and efficiency. (Yang & El-Haik 2008, 72-73.)

The processes of product and service development have shaped up during the past years, and each company has probably its own modification of these basic models. To understand how and why the voice of the customer through user information can be used during the process, this area is discussed in the next chapter.

2.3.3 User information in service development

A successful product or service should rely on three basic elements: it has to be technically functional, commercially profitable and generate pleasure and benefit for the end-user (Hyysalo 2009, 17).

In order to create a successful product or service, the key success factor is the ability to gather information about service users and usage. Even though studies have proved that most companies do involve their customers, there are large differences between companies and industries concerning on how and the extent that customers are involved. At the same time many of the research studies have proved that most of the companies don't know how to conduct usability design. For example 70 percent of the information systems in Great Britain and United States have been stated as functional failures, which mean that they have only caused annoyance or some minor benefits for the users. Over 46% of all product development costs were used to these either cancelled or unprofitable projects. The biggest reason for failures was not paying attention to customer needs. Understanding the end-user needs and service usage is still commonly the weakest link of service and product development in Finnish companies. (Edvardsson et al 2006, 33-34; Hyysalo 2009, 12-14.)

Investments to gather end-user information and feedback during the service design process, will pay back the costs usually already during the technical implementation phase. It has been estimated that even 100% – 1000% savings per investment can be achieved, because found issues and bugs are easier to repair already in early stages of development. Even a brief introduction to end-users and their service usage environment helps product developers to reduce totally unsustainable solutions and improves the planning of details. (Hyysalo 2009, 17.)

Even though using customers as end-users in usability testing brings very valuable information for development, it also requires a lot of effort, time and resources. It can

be hard to find the right group of people for testing. Another concern of using customers in service testing is that the solution has to be quite ready, and at that phase the customer feedback may mean extensive changes to already created service or product. Implementing bigger changes to almost ready product mean more time and delay for the launch schedule. To enable faster delivery and high quality for launched solutions evaluation and testing needs to be done throughout the development process starting already in the proto phase. To commit customer into long testing periods is not always realistic and also secrecy of unpublished services or products and immaterial rights is important to maintain. (Hyysalo 2009.)

Based on Hyysalo (2009) and Edvardsson et al. (2006, 154), user information is essential for example in these functions:

- **R&D** – The lack of user information often means significant corrections, fixes and re-designs for already launched services or products. These kinds of changes are usually expensive, and the biggest costs are related to indirect costs of production and marketing.

- **Marketing** – Marketing efforts are gone to waste if products or services have to be pulled back, or the deliveries are delayed.

- **Business** – Usage related information helps to estimate different earning models and correct pricing. Also business risks decrease, when the launch is not a leap into the unknown. Knowledge about usage environments helps to anticipate the possible needs for change.

- **Designing maintenance and technical support** – When product developers have an understanding about the user needs and usage requirements, maintenance and technical support for the service can be designed to be sufficient and functional right from the beginning.

- **End-user** – Poorly designed products incurs annoyance and costs to their user.

User information is not only market and customer information. It relates to the real actions of the user and becomes absorbed in behind the customer buying decision and

common categorization. Figure 11 presents the different types of information and their roles.

Type of information	Market information	Customer information	User information
Tells about the user	Who can buy, from where and how	Who has bought, from where. Complains and plaudits	Who, how, for what and why the product is finally used
Tells about the user values	Common customer trends and desires (+ 25 years, sporty)	Information received from trends and desires of the customers (middle aged, fitness)	What are user values based on, what does the user value in the product and usage environment
Tells about user behaviors	General descriptions (plays golf, not competing)	References of problem situations and good features, improvement proposals	What does the usage consist, in what kind of environment, what is most important for the user?
From where and how	Market research, competitor analysis, group discussions, different statistics	Customer feedback and fault reports, discussions, partners, sales, customer surveys	Studying the future and existing customers and through co-creation with the customer
Biggest strength	Provides an overview of potential customers, established way of telling about customers	Real information about real customers	Provides detailed understanding about how and why users act, what does the user want. Combines market and customer information
Typical problems and shortages	Usually too high/ common level information to develop customer based solution	Fragmented information emphasizing to certain customer types. Difficult to analyze how different things are related to each other	Companies don't know how to acquire. User information often requires supplementation with wider market research

Figure 11 Differences between market-, customer- and user information (Hyysalo 2009)

Innovations are surely not always discovered in the R&D department of the company, and more important is the fact that users have influenced the development latest before the second service or product version is released. Resources are not wisely used if the company is not exploring how users could enhance the service or product development work. (Hyysalo 2009, 93; Chesbrough 2006, 177.)

One option to effective utilization of user information and to develop better services is open innovation with co-operative work across the organization and with customers, states Ostrom et al. (2010, 16). The following chapter discusses the concept of co-creation to be able to answer questions such as "What are the dimensions of co-created services?", "How is the role of the customer and the organization defined during co-creation?" "What processes, tools, and business practices are useful to define, motivate, and manage customer and employee roles in co-creation? "

2.4 Improving the service experience through co-creation

Co-creation is an essential way of creating value for the customer and adopting value for the company. Customer participation in co-created services influences conceptions, market acceptance, and amplitude of service usage, repeat purchases, and recommendations. It also affects the company performance, including the efficiency of operations, employee satisfaction and financial results. Consequently, managing co-created services is important for the company to succeed - especially in complex service offerings with multiple touch points. (Ostrom et al 2010, 21-22.)

2.4.1 A conceptual framework for co-creation of value

Definition for value according to Vargo and Lush (2006) in the aspect of service-dominant logic is that the value is no longer determined by the producer and within the product itself, but the value is determined by the consumer on the basis of " value in use". They continue that this means that the company can only make value propositions. The supplier contribution is a value proposition through a service or a product, and the customer contribution is value actualization (Gummesson 2007, 15). He challenges the expression "use it" as it may create wrong impressions and describes the service or product usage rather as customer interaction with the service or a product; *"...the customer rather interacts with the car and service is created in that process"* (Gummesson 2007, 15). This value process can have an emotional touch. This means that it can create joy, admiration and also disappointments or it can be strictly rational (Michel et al 2007, 153; Prahalad & Ramaswamy 2004, Vargo & Lush 2004).

Vargo and Lush (2008) present the differences in value creation between goods-dominant and service-dominant logic (figure 12). They state that rather than in exchange, value is essentially created and determined in use.

Value driver	Value in exchange	Value in use
Creator of value	Company	Company & customer
Value creation process	Company integrates value in goods	Company proposes value with an offering, customer continues creating value by using it
Purpose of value	Increase profitability	Increase adaptability and survivability
Measurement of value	Price received in exchange of goods	Value is determined by beneficiary (customer)
Resources used	Mainly operand resources	Mainly operant resources
Role of the company	Produce value	Co-create value
Role of goods	Outputs with integrated value	Service-delivery enablers
Role of customers	Use value created by the company	Co-create value with company

Figure 12 Goods-dominant vs. Service-dominant logic on value creation (Vargo & Lush 2008, 148)

Service and value are not created only by the company and customers, but in a network of activities involving different stakeholders like employees, media, friends and society. Instead of only one company, there can be a network of companies acting together to establish a network influencing the value. Hence, value can be both individual and experience based, depending on the actual co-creation experiences of an individual customer. Customer value chain and company value chain are not the same. Company can control the technical qualities of the product or service, but each customer will use it in a personal way and experience the value differently. While the company value chain may be based on mass production, the customer value chain is individual and changeable. (Gummesson 2007,15-17; Pralahad & Ramaswamy 2004, 137-138).

Co-creating value

Co-creation with customers is a rather new, but important and growing field in the service world. It is raising interest from both practitioners and academia due to the vogue of the service-dominant logic and its focus on value in use. An essential concept of service-dominant logic is that the value of an offering can only be evaluated as the eyes of the customer. Customer value creation process is the central essence, not the offering of the company. This transition should have an enormous impact how companies work to develop enhanced services to their customers. (Ostrom et al 2010, 21.)

As presented in the context of service innovation, co-creating new service experience with customers can help drive a more open, collaborative innovation process, resulting in higher customer success and loyalty. This is what Professor Chesbrough called open innovation. Rather than created and delivered by the firm, value is conceptualized and co-created by firms and customers, each in the context of and participation by their own unique, complex networks of resource access. This requires zooming out to this dynamic, network-with-network, value-creation space to understand the value as contextual, emerging, and experienced, rather than fixed, deterministic, and objective. (Chesbrough 2006; Ostrom et al 2010.)

Customers can provide valuable information on what they want from a service as they are masters on their own consumption process. One reason for service failures has been that companies tend to think that they are the only experts on their offering and not thinking how customers can participate. When users' needs and expectations are driving of the design process the usability of the product or service is confirmed. E.g. ISO 13407 (1999) standard for interactive systems defines the human-centered design processes, including the user needs in the design process. The process has four stages; defining the context of use, making the definition of the user, producing the design solutions and evaluating them. Even this standard is aimed for system design; the same principles apply also to other areas of business. (Lovelock & Wirtz 2007,11; Ostrom et al. 2010, 21; Miettinen & Koivisto 2010, 64.)

According to Payne et al. (2007, 85) recent researches on value co-creation in the context of service-dominant logic have not been able to provide that many frameworks for organizations to manage their co-creation process. He claims that even though literature does give examples of the companies that have adopted co-creation and good insights into what should be addressed fairly little is written on how this process should be initiated. Payne's Co-creation framework presents a set of interconnected processes and recurrent nature of co-creation. It shows different incidents between customer and supplier which happen as a result of the value-creating processes.

Payne et al (2007, 85 - 86) define three main components which the framework consist of;

- **Customer value creating processes** - including the resources, tools and practices which customers use to achieve a particular goal.

- **Supplier value creating processes** - with the resources, processes and activities which the company uses to manage its business and relationships with customers and other stakeholders.

- **Encounter processes** - meaning the interaction and exchange that take place within customer and supplier relationship and which need to be managed in order to develop co-creation opportunities.

The framework highlights the benefit of customer involvement at every stage of the product or service development, and both managers and customers should be encouraged to consider innovative co-development of new offerings. Prototyping and testing in the co-creation process can be viewed as part of both customer learning and organizational learning, and it can be carried out on an ongoing basis. (Payne et al 2007, 92-93.)

Value co-creation requires a change of strategy from “making, selling and servicing” to “listening, customizing and co-creating”. It is also cross-functional, meaning that all functions of the organization that make and deliver customer promise are aligned. (Payne et al 2007, 89.)

While the value co-creation framework of Payne et al (2007) offers more theoretical approach to the subject, other authors like Prahalad and Ramaswamy (2004), Edvardsson et al (2006), Vargo and Lush (2006) present the value co-creation through more practical point of view and using case studies. Prahalad’s and Ramaswamy’s (2004) “spectrum of co-creating experiences” conceptualizes the complex patterns of interaction between the consumer and the firm (figure 13).

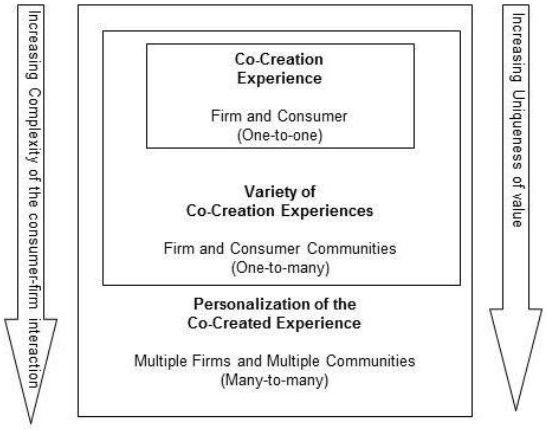


Figure 13 The spectrum of Co-Creation experiences (Prahalad & Ramaswamy 2004)

According to Prahalad and Ramaswamy; *"These patterns of interaction will shape the value creation process, challenging existing ways of doing business and creating value. At the same time they create tremendous new opportunities*" (Prahalad & Ramaswamy 2004, 11).

On the basic level – 'one-to-one' - the interaction is intensive, more transparent and involves human interaction. On the next level the company must deal with a large number of consumers and the interaction changes more heterogeneous with different approaches to interaction. The third level describes a networked interaction, where both consumers and the firm can interact with several communities in the network. The co-creation experience is different every time, and when the complexity of the interaction crows, also the uniqueness of the value increases. (Prahalad & Ramaswamy 2004, 10-11.)

Also Gummesson (2007, 16) emphasizes the complexity of value co-creation process with his 'Network theory'; *"A network is made up of nodes, such as people or organizations, and relationships and interaction between those".* His 'Network theory' is part of the 'Complexity theory' identifying that numerous variables interact, number of unique situations is unlimited, change is a natural state of affairs and that the processes are iterative rather than linear.

Customer role in co-creation

As learned so far, the customer role has changed from passive receiver to active contributor and co-creator of value. More and more companies have realized that consumers are a powerful source of new competencies. The fundamental change has happened from pre-1990s' assumption of business unit being the only source of knowledge to today's approach with consumers and consumer communities as a source of competence. In today's business companies are inviting their customers to take a role in co-producing new services and products or improving the existing ones. (Prahalad & Ramaswamy 2004, 141.)

The inherent nature of process consumption and co-creation of value with customers in many service activities requires clear focus on the customer role in innovation and design. Customer role can vary depending on the phase of the process. The following figure 14 originally presented by Edvardsson et al. (2006, 27) describes the different purposes and stages for customer involvement.

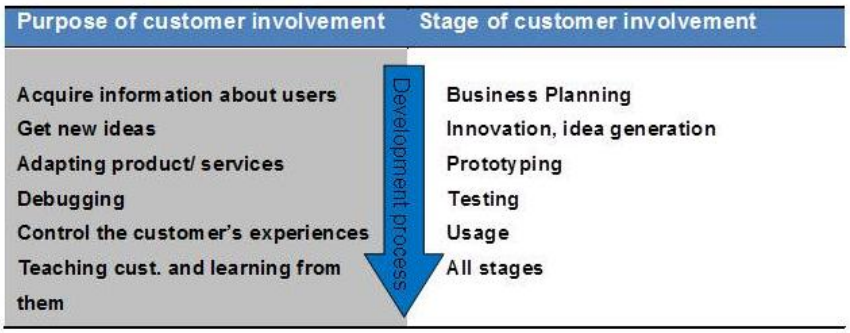


Figure 14 Different purposes and stages for customer involvement (Edvardsson et al. 2006, 27)

Customers can have different roles in value co-creation depending on what area they are involved. The next chapter discusses more about one the commonly used customer involvement areas – testing with real end-users (customer).

2.4.2 Co-testing with users

As learned in previous chapters, there are different models and levels of utilizing end-users in service development. The lightest way is to utilize the existing customer information without any user involvement. On the other end is a model where the user creates a new solution independently and between these two extremes, there is a variation of models and levels for customer involvement (Holopainen & Helminen 2010). One of the most common models is direct user collaboration. Direct user collaboration means that the user has an active role in executing some part of the development process. This working method is at its best when the developers don't have good knowledge and understanding of the customer or target market. Users can assist the developers in their work. In concept design or testing phases the users can indicate what are their need and expectations for the product or service. This is usually more efficient than trying to gather and deliver the information to R&D otherwise. User collaboration offers information and competencies to all parts of the usability design. (Hyysalo 2009, 94; Edvadsson et al 2006, 74; Holopainen & Helminen 2010.)

As a case example of direct user collaboration, Hyysalo (2009) presents the case Microsoft in his book 'Käyttäjä Tuotekehityksessä', as the company used co-testing with their key users. Microsoft has established their market leader position as a software house with the Windows operating system. The company told that they have used years of work and hundreds of million dollars for the development of the operating system. The biggest investment in the development came, however, from the users. Microsoft gave 400 000 beta prototype versions of the software to their key users for testing. A conservative estimate for the cost of one IT-specialized key user work contribution is 3000$, and the amount of really tested units was 300 000. The key users subsidized Microsoft with almost one billion dollars only during the testing phase. As a result, the main success factor for Windows95 operating system was that it had exceptionally few bugs compared to the size of the technical leap it took.

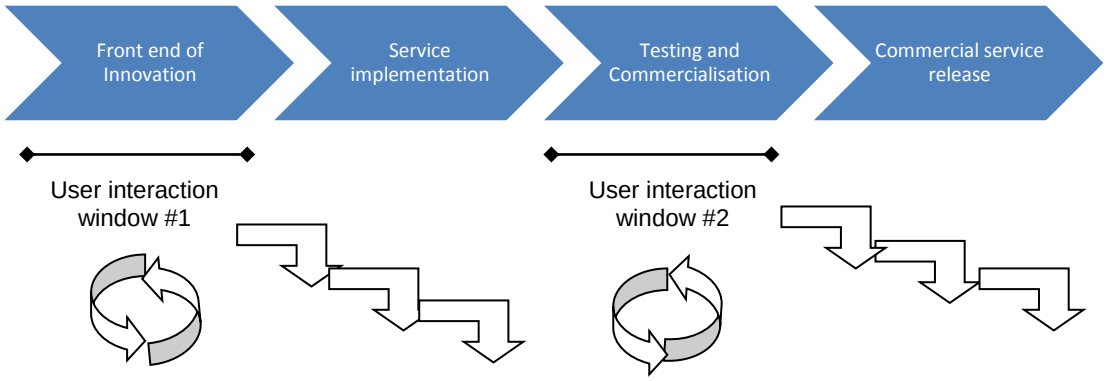


Figure 15 The windows for user involvement in product development process (Edvardsson et al. 2006, 155)

The figure 15 shows two potential phases in product development process where user involvement is used to create or evaluate new, innovative concepts and later to test these prototypes of the product or service. In this model, the implementation and commercial release phases are conducted by the company alone. (Edvardsson et al. 2006, 155.)

Hyysalo (2009) alongside with other researchers (e.g. Edvardsson et al. 2006) presents the following benefits of using direct user collaboration:

- Users can directly indicate their needs and requirements for the product.
- Direct user collaboration creates information about areas which developers wouldn't necessarily have noticed.
- Direct user collaboration decreases the time required for usability orientation and testing.
- Direct user collaboration increases the service credibility.
- Users can be educated through collaboration, and it increases customer loyalty.

On the other hand, direct user collaboration requires time and resources to start up and maintaining the collaboration. The main risks in co-testing with users are the risk of wasting time with ineffective and unrealistic working methods, choosing wrong users or been stuck with only one user segment. The success depends on what kind of users the technology has and how motivated the users are to develop the product. Users are not always aware of their current and future needs. (Hyysalo 2009, 95 -97.)

The most commonly used user collaboration type is testing; gathering feedback about possible issues and proposals for improvements. This means that users are requested to report and describe the problems and improvement ideas which they find out while using the product or service, typically during the testing phase or pilot phase. Neglecting this method in the development process is not wise, because every product and service always has small and bigger issues and bugs which are found by the users almost without exception. Users also produce improvement ideas that can increase sales and usefulness of the product. Direct user collaboration is the cheapest, the most systematic and the most effective method to bring out those. (Hyysalo 2009, 93- 95.)

It is important to involve customers directly in piloting the service. Piloting a service is the best way to manage the risk of “new –to- the- world” services. With this is referred to radical innovations. Unfortunately, many companies are too scared of exposing their intent to market. The risk of not piloting the service in order to protect the first-mover advantage should be balanced against the advantages that pilots offer. Radical innovations are based on evolving customer behaviors and market trends. (Lockwood 2009, 192; Edvardsson et al. 2006, 67.)

Co-testing with users

Collaboration between product developers and users is a combination of two different viewpoints, knowledge and operational environment cultures. One might not always understand what the other one is trying to tell, or the message can be misunderstood. Using some basic guidelines can prevent possible problems and makes the collaboration more effective. Hyysalo (2009) and Edvardsson et al. (2006) present the following guidelines for co-testing.

At first the users need to have a realistic understanding about the targeted goals, available resources and technical readiness for testing. Too tight targets, however, are not

functional because the biggest advantage in user co-testing comes from learning and utilizing the information which the developers are not aware of in the beginning of the collaboration. Secondly the results need to be visible for the users. There is probably nothing that de-motivates the users more than if their feedback and ideas seem to disappear somewhere inside the company processes. One good way of making the results visible is to create an idea-bank or "waiting room" for the presented improvement ideas so that users can see their ideas have been noticed. Thirdly it is important to understand that deeper user collaboration takes time and requires investments to achieve the expected results. It cannot be conducted as a small side task of the R&D personnel. The users must also be rewarded for their participation. (Hyysalo 2009, 94 – 105; Edvardsson et al. 2006, 154-155.)

Edvarsson et al. (2006, 156) emphasize that users should not be considered as substitutes for professional developers, but important addition to the development process. They state that successful user involvement is the interplay between users and professionals. Also intellectual property rights concerning the ideas created by users are an important issue and should be taken care of before involving users for innovation, they highlight.

Intellectual property rights in service co-creation

The increasing dominance of the service economy has created new challenges such as protection of knowledge. Co-creation increases the risk of unwanted information leaks, and companies should protect the information with immaterial property rights (IPR). (Hipp & Herstatt 2006, 270.) These new challenges according to Hipp and Herstatt (2006, 271) require understanding the nature of knowledge and in which manner it can be bought or sold. They continue that it has been often noted manufacturing firms have patents but services have weaker intellectual property management, and this may restrict the innovation process.

Ease of copying has been noted not higher than 7th important challenge by the European companies as there has been other ways of preventing the copying. The methods used have been, for example, shorter service cycle time, secrecy, complex design and tacit forms of work organizations. In case of IPR rights, it is often referred to protection

of ideas such as new business concept or process, but the key question is who owns the ideas. (Hipp & Herstatt 2006, 272.)

There are ways to protect the information also in co-creation with customers. Patents, long-term labor contracts, lead-time advantages and customer relations management are important tools to secure the immaterial property rights. (Hipp & Herstatt 2006, 276.)

Even though customer involvement and co-creation have become a major trend in today's business, companies have one valuable asset, which should not be forgotten - employees. The next chapter discusses the idea of handling employees as internal users.

2.4.1 Employees as an asset in service development

The greatest benefit a company has is not its financial capital or services and products the company offers. The greatest asset a company has is its employees. Without employees, there would be no one to sell those product and services, manage the operations or handle customers. Employees are the intellectual capital for the company. They not only bring their skills and competencies; they also bring ideas, creativity and eagerness to learn. Maintaining a happy and consistent workforce is going to need to be the primary aim. Failure to do so will result in an organization being short quality people which will spell its ultimate demise. (Kaplan-Williams 2009; Harting 2008; Paton & McCalman 2008, 166.)

The last few years saw a shift in the focus of some companies. For ages, management professionals were declaring that the customer is the most important thing. A commonly seen signs stated, "Rule #1: The customer is always right". This concept dominated the business culture from the late 1970s through today. However, organizations that hope to survive in the future will need to adopt a new outlook. That outlook is that the employees are the most important aspect of any enterprise. (Harting 2008; Palmer 2005, 443.)

Those organizations which are able to acquire, develop and share information will be the ones surviving the challenges of today's markets. Those organizations do not

merely learn, but also remember and connect seemingly unrelated information to predict the future. By doing so, these successful organizations engage their employees in the acquisition and utilization of ideas for new products, services, processes and solutions. (Heskett, Sasser & Schlesinger 2003, 275.)

Employee contribution can be seen not only by executing the company strategy, but also as internal users. All companies can be thought to be a marketplace composed of a versatile group of employees who engage in exchanges between each other. (Palmer 2005).

Based on the previous chapters it can be said that utilizing internal users (employees) in testing is a way to test services and products already in early stages of the development process. Employees are available and easy to reach. They usually have also the obligation of secrecy to make sure unpublished solutions are not leaked to public. Large global companies can have thousands of people working all over the world in different market areas, this way most of the markets and segments can be found inside the company. Even in a smaller company, people working other departments than R&D can offer similar viewpoints than external users.

If the company decides to use its employees in the development alongside with customers, the question is; “How can organization empower employees to have a hand in owning and evolving service if they do not always have a direct role or full responsibility?” This requires high motivation and commitment from employees. It also requires strong management and leadership through creating and maintaining the service culture. The following chapters discuss the role of change management and leadership in the transformation towards service-dominant logic and the current research on motivation.

2.4.2 Change management and leadership

Change in today’s companies is a constant, ongoing process, which may be caused by external or internal forces. These forces are such as recognition of environment, market’s globalization, and change in lifestyle trends or technology. The change itself is not the problem, but too often it is the lack of competent change management. Paton and McCalman (2008) refer to Buchanan and Huczynski (2006) who have stated that the key managerial competence of both 1990s and 2000s is the ability to manage change.

Today change is a permanent feature of organizations, both on operational and strategic level. Managers should understand that strategic change management cannot be separated from organizational strategy. Most of all the human side of the change must be considered and ensured that motivators are in place in new processes and structures. (Paton & McCalman 2008, 8-9, 39 – 40.)

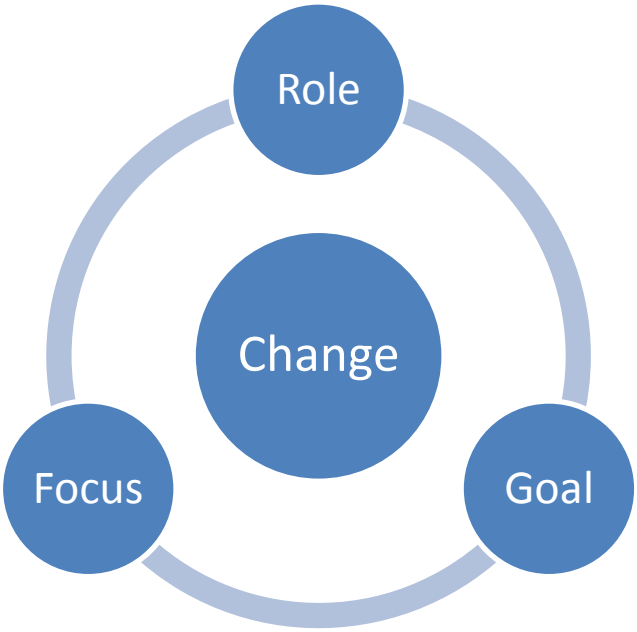


Figure 16 The "Trinity" of managerial rules (Paton& McCalman 2008, 43)

Successful change requires following the 'Trinity of three managerial rules'; maintaining the focus and goals of the change and awareness of the roles (figure 16). The first rule of maintaining the focus should help to understand what is expected after the change, and it should keep the focus on the managerial and business environment. If the change process is long, attention and commitment may decrease. However, these can be maintained by ensuring the senior management support, reorganizing the core management team or by forcing the pace. The second rule of role awareness is related to understanding the term of added value and clarifies the managerial roles. The third rule of the "Trinity", maintaining the goals, helps effective development and achievement of business strategies and is dependent on management of the resulting change. (Paton & McCalman 2008, 43-44.)

Change management also requires a wide arrange of skills and resources, such as communication, negotiation and influencing skills. In addition to those, planning and

control procedures to orchestrate group and individual activities must be in place. Most of all maintaining motivation and providing leadership across the organization is crucial. (Paton & McCalman 2008, 40.)

Leadership rather than management

Adair (2009, 162) describes the leadership: *"You can be appointed a manager, but you are not a leader until your appointment is ratified in the hearts and minds to those who work for you".* The relation between managing and leading is an overlapping one. Managing its best is nearly same as leading, as understood in the functional approach. However, no leadership exists in the raw; it is incarnated in a situation and it needs to be earned. Leadership has also certain overtones – a sense of direction, vision and inspiration – which are relevant in management at all levels. (Adair 2009,100 -102.)

According to Adair (2009, 103) leadership can be defined by the following three areas of need: achieving the task, building and maintaining the team and motivating and developing the individual.

The vision and leadership are not only important assets in creating the company culture but also motivating. As Deeprose (2003, 159) presents: *A compelling vision is a call to action. Effective leadership directs and nurtures the action, sustaining it over the long haul."* The right vision attracts commitment and energizes people. It creates the difference between working for the money and working for the joy of meeting a worldwide challenge; it bridges the present and future and creates a meaning in employees' lives. (Deeprose 2003, 159-160.)

By defining a compelling vision is only one way that leaders affect employees' commitment to the organization and enthusiasm for their work. It is also up to leaders to communicate the shared vision throughout the organization so that people at all levels understand the direction which the organization is moving, and how their jobs fuel that forward movement. (Deeprose 2003, 160 – 161.)

As learned in chapter 2.2 part of the vision and company culture exist the company values. Management as leaders should live the values of the organization, establishing their own and the organization's creditability. They should also serve as role models for everyone in the enterprise (Deeprose 2003). Leading by example includes also being

willing to roll-up your sleeves, for example, Southwest Airlines CEO Herb Keller is famous for the days he spends working the gates and handling baggage (Wardell 2005, 26).

A healthy manager – employee relationship is built on trust, caring mutual appreciation, two-ways respect and ongoing communication (Deeprose 2003). Management should actively listen to their employees and learn what they know (Adair 2009).

In light of today's business conditions, motivating people to be their best has become more crucial than ever. Economic uncertainty and ever-stiffening competition with thinner profit margins have made it clear that only through motivation management can help their employees generate the excellent performance that enables to boost profitability and survive during tough times. On the other hand, even a healthy economy is no guarantee that a company will get the most from its employees. The paycheck alone won't motivate, people want to have meaningful work and feel being part of something larger than them. Motivated employee care about more than just their own jobs, they commit to enhancing performance across their entire organization. (Case 2005, 10.)

2.4.3 Theories of motivation

John Adair describes the motivation as the sum of all that moves a person to action (Adair 2009, 12). In other words, it is an inner feeling, a drive that inspires and sustains action and commitment (Deeprose 2003, 2).

Abraham Maslow, one of the most influential motivational theorists, defined a hierarchy of human needs, and maintained that each of us is motivated by our lowest unmet need. Maslow's proposition (figure 17) is that needs at one level must be at least partially satisfied before those at the next level become important in determining our actions.

After the physiological (biogenic) needs have been fulfilled on the first level the individual turns their attention to the fulfillment of more advanced psychogenic requirements like social acceptance and self-esteem. As work environment is also a social environment, for some people it may present the majority of the people contact in their lives. (Forsyth 2007,19.)

People also have needs for “cognition”, that is to know and to understand things (level 5). There can also be a need of creativity and of outlets for artistic, creative and aesthetic drives. The 6th stage in this motivational hierarchy model from 1990s is the need for what Maslow calls self-actualization. This self-realization is a process in which the individual has the opportunity to invest all their talents and abilities in activities which they find meaningful; activities which develop personality e.g. through leisure activities and creative pastimes. If we think of work environment, these would mean recognition within the organization and among those people comprising the work environment. Other forces driving our behavior come from the need for safety, social integration, personal recognition, learning, or from the perceived importance of spiritual satisfaction. (Evans, Jamal, Foxall 2006, 7-8.)

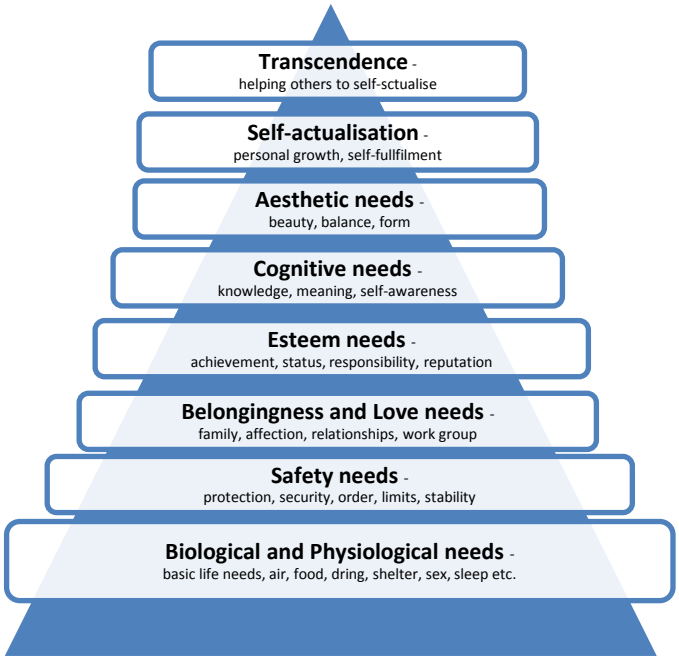


Figure 17 Hierarchy of needs (1990’s eight-stage model based on Maslow)

Frederick Herzberg, another well-known theorist, recognized two kinds of needs; hygiene factors that come from job context and motivators that are related to job content (figure 18).

Hygiene factors	Motivators
Company policy and administration	Achievement
Work conditions	Recognition
Relationship with supervisor	Work itself – job content
Personal life	Responsibility
Supervision	Advancement
Status	Growth
Relationship with peers	
Salary	
Relationship with subordinates	
Security	

Figure 18 Herzberg's human needs related to work (Adair 2009)

He listed the following motivators being the most positive in the long term; achievement, recognition, possibility to growth, advancement, responsibility and the work itself. According to Herzberg salary has only a short-term satisfying effect. (Adair 2009, 60-64; Deeprose 2003, 18-19.)

"*A sense of personal growth and of self-actualization is the key to an understanding of positive feelings about the job"* refers Adair (2009, 61) to a research conducted by Herzberg.

If we compare the theories of Maslow and Herzberg, it can be seen that the most of the hygiene factors in Herzberg's model correspond with the lower levels of Maslow's hierarchy and the motivators match the higher levels. The difference according to Deeprose (2009, 16-20) is that Herzberg didn't see the factors as a progression, but as two sets operative at the same time.

Managers have been studying these theories of Maslow and Herzberg since the 1950s and '60s and still until recently, companies have relied mostly on buying compliance from their employees. It's taken a new world economic climate, technology that has turned the management-employee compact upside down and a generation of employees with new demands to awaken organizations to realize that commitment cannot be bought. Instead, it can be earned by creating a new kind of working environment. (Deeprose 2003, 20.)

Management role in motivation

Motivation cannot be given to someone like an assignment. As a manager one has to create an environment, where people are most likely to feel motivated to take actions that contribute to organizational goals. In this kind of environment people believe their work is meaningful and have control over how they do it. People should have opportunities for growth and get feedback and recognition for their accomplishments, and of course a fair financial reward (Deeprose 2003, 2-3). Also Adair (2009, 60) agrees that to find meaning in their job, people must believe that their effort matter and must have continual opportunities to learn.

Patrick Forsyth (2007) lists the following six key management tasks when we think about motivation:

- Planning the work
- Recruitment and selection
- Organizing
- Training and development
- Motivation
- Control

Even though motivation is a separate task on the list, it can be influenced through all the other activities. Because motivation goes so tightly hand in hand with other management activities and because how people perform is so closely linked to how they feel about the work they do, the job of motivating people can become an inherent element of the total management job. (Forsyth 2007, 8-9.)

Human resource management role in motivation

Grönroos (2007, 395) emphasizes that rewarding employees for the good service is powerful internal marketing factor. Too often companies have their employee's incentives tied to financial and operative metrics. He states that if a company wants to deliver excellent services it should award employees when they perform well in the field of service. As noted by Johnston and Clark (2008, 405) world-class service companies

promote learning and development. They continue that achievements are feted, and persons who made it happen are recognized.

Empowering and enabling employees

Empowering employees means that management assigns certain authority to employees to make own decisions or take actions when dealing with customers. There should be limits to which this authority is given, and those should be thoroughly thought. The most important thing in case of the empowerment is that customer contact knows his responsibilities and is able to perform more effectively and the customer-oriented way. When succeeding with empowering as a part of internal marketing it can increase the commitment and job satisfaction. This, in turn, may improve the customer satisfaction and have positive affect to company's profitability as well. Empowerment requires trusting relationships between employees and management. Management needs to show they trust on employees having the ability to make decisions and take correct actions. Empowerment also requires time and will evolve over time. Management needs to create an atmosphere where employees feel that they have power and are able to use it in customer contacts. Enabling is part of empowerment and means that employees get the support needed for making decisions in the service process. When employees are more motivated and engaged they might notice improvement ideas in their work with customers and are eager to influence and express their new ideas. (Grönroos 2007, 402.)

Communication – open book management

One way to empower employees is a system called "open-book management". This means "opening the book" to employees across the organization and educate them to see the big picture. Companies can strengthen the employee commitment if they understand what's going on in the company. This means sharing financial information with employees, explaining the information's context and discussing how even the objectives of the smallest department support larger corporate-level strategic efforts. This could be also described as creating a sense of "we are all in this together" by sharing what you know about the company's business plans. (Case 2005, 11-12, 110.)

Rewarding

According to Deeprose (2003) recognition and rewards work to energize employees because:

- They reaffirm the employee's feelings of competence.
- They demonstrate that the organization values the employee.
- They are, in themselves, desirable.
- They demonstrate to employees what the organization considers valuable.

Most of the people feel more confident of their own competence when it is confirmed by an outside source. Being recognized by the organization reinforces the pride one feels in one's own performance, in value as an employee and human being. The reward can take a lot of forms, like dinner out or couple of days off, such things have value themselves. (Deeprose 2003, 116-117.)

Rewarding should be worth of the effort, and because different rewards motivate different people, management should involve employees in designing the reward system. Involving employees in creating the rewards program gives them the opportunity and the responsibility to design and will minimize the de-motivation risk of rewarding. Rewarding should be also based on organizational values and goals. If the values and goals are worth more than the paper they are written on, then it stands to reason that the management wants to motivate employees to behave in ways that align with them and contribute to them. (Deeprose 2003, 118-120.)

Tools and technologies to support

One important part of motivation and to make employees more productive after understanding what is expected from them, is to enable right tools - materials and equipment - for them (Case 2005, 163).

For serving the customer with the best possible way, customer databases and systems are needed for effective internal service support. Internet and other information technology (IT) systems have created efficient support systems for many companies. It is important that employees have access to customer data, and they can quickly solve

customer's problems in different parts of the organization. This will increase commitment among the employees. (Grönroos 2007, 395; Case 2005.)

Employees especially in the front line of the customer service may need more support than just IT systems. Sometimes after service failure situation might be frustrating or even humiliating to the front line employee. In these occasions company needs to help employees to recover from such emotional stress. Management might need to establish a process which supports its staff after difficult situations. (Grönroos 2007, 396.)

2.5 Summarizing the research literature

In the preceding review of current service research literature, the chosen theoretical framework and priorities were reviewed to create the foundation for the actual case study in the case company.

Based on the service literature review, the authors of this thesis conclude that all three of the chosen service research priority groups are crucial for a company in transformation towards more service and customer focused business. It can be said that without one area being fulfilled, the two others will not succeed. The growing service sector together with service-dominant economy are realizing the concept of service-dominant logic (Vargo & Lush 2006) where the customer is a co-creator of value and company can only make value propositions. Even the S-D logic seems to have gained ground as an evolving base for a new theory; the authors feel that the realization of its propositions in real life is still unknown. What is evident, however, for companies the transformation from GD-logic to SD-logic will require significant changes throughout the whole company, as it has effects to all of its operations.

Based on the literature review a group of change factors related to chosen aspects of business (strategy, development and execution) can be present and used to evaluate their realization in the case company. These change factors (defined by the authors of this thesis) are presented in figure 19 (below).

Strategic priorities	
Change factor	Description
Strategy, mission and vision	• Company strategy , mission and vision are service and customer focused. • Service strategy is created and supports the mindset of 'listening, customizing and co-creating' rather than 'making, selling and servicing'
Management and leadership	• Strong management support for service culture • Change management and leadership across the organization • Managers are leading by example
Company culture - Service culture	• Company has established and adopted a clear service culture with focus on customers • Company values are supporting the service mindset • Strong internal company spirit
Organizational structure	• Organizational structure and processes are supporting co-creation, customer focus and service mindset
Internal marketing, communication	• Internal marketing is used to create and maintain the service culture by promoting the service mindset • Promoting new services internally • Communication and feedback enhancing internal relationships

Development priorities	
Change factor	Description
Service design and innovation	• Service design and innovation adapted to development • Service design is realizing the service strategy and embracing innovation
Co-creation part of a development process	• Development processes support co-creation • Service design methods used in the development process
Understanding customer needs	• User information utilized throughout the development process • Development is based on the customer needs and 'value in use'

Execution priorities	
Change factor	Description
Users co-creating value	• Users are involved in co-creation throughout the development process
Immaterial Property Rights	• IPR clarified and rewarding for good ideas embraced
Empowerment - employees as an asset in service development	• Employees are involved to co-creation and empowered to participate • Employees are treated as internal customers • Right motivators in place
Open communication	• Open communication across the organization • Information sharing

Figure 19 Change factors required in transformation from product- to service- focused company

2.5.1 Strategic priorities; creating and maintaining a service culture

The first group of change factors is defined based on the strategic priorities. These factors are related to company strategy, management role, the importance of company culture and communication and organization.

Strategic priorities	
Change factor	Description
Strategy, mission and vision	• Company strategy , mission and vision are service and customer focused. • Service strategy is created and supports the mindset of 'listening, customizing and co-creating' rather than 'making, selling and servicing'
Management and leadership	• Strong management support for service culture • Change management and leadership across the organization • Managers are leading by example
Company culture - Service culture	• Company has established and adopted a clear service culture with focus on customers • Company values are supporting the service mindset • Strong internal company spirit
Organizational structure	• Organizational structure and processes are supporting co-creation, customer focus and service mindset
Internal marketing, communication	• Internal marketing is used to create and maintain the service culture by promoting the service mindset • Promoting new services internally • Communication and feedback enhancing internal relationships

Figure 20 Strategic change factors

Strategy, mission and vision are the cornerstones of all business and companies. Therefore, the whole transformation from product focused manufacturing towards customer focused, and service minded business logic should start from defining these factors. When a company wants to change its business model towards service mindset and have the focus on customers, the starting point is to have a service-oriented strategy. The strategy should support the customer focused mindset of 'listening, customizing and co-creating'.

After a company has established a service-oriented strategy and the mission is including a service mission, based on the research literature it means that the company management needs to be committed to creating also a service-oriented organization. The true service leadership in all levels of the organization is the key to great service.

Management support is important if service-oriented values are to be shared with employees, strengthened and made an integral part of the organization. (Johnston & Clark 2008; Grönroos 2000.) The authors of this thesis see that in company transformation, strong management support and well led change management are the key factors after building and establishing the strategy. They are in a key role to renew the company culture and to create a service culture across the organization. Management should always lead by example and constantly learn from the organization.

Company culture has an enormous impact on how service-oriented the company is. The concept of company culture is used to describe a set of common norms and values shared by people in an organization. The company culture, vision and values should support the change towards service mindset. Service culture as part of company culture defines the depth of service orientation, meaning that all levels of the organization need to understand and be engaged for keeping the focus in customers and sharing the service mindset. (Johnston & Clark 2008; Grönroos 2000.) Also organizational structure and processes should support service mindset and customer focus.

The fifth change factor, internal marketing is used to maintain the service culture. It should ensure that management promotes service mindset towards employees, enhance internal relationships, and support effective communication and feedback within the company. Internal marketing is also used to promote new products and services to employees before the commercial launch. (Palmer 2005; Grönroos 2007; Kotler et al. 2009)

The authors of this thesis define these five change factors as the key enablers from the field of strategic priorities and business area to manage the company transformation from products to services.

2.5.2 Development priorities; enhancing service design

The second group of change factors is defined based on the development priorities, to enhance service design. Based on the literature review, the authors of this thesis emphasizes the importance of having service design as an integral part of the development process and ensuring that the process supports co-creation and different service design methods. These are required to bring the user information into the process and

most of all to understand the customer needs. The development activities should be based on the customer needs and values.

Development priorities	
Change factor	Description
Service design and innovation	• Service design and innovation adapted to development • Service design is realizing the service strategy and embracing innovation
Co-creation part of a development process	• Development processes support co-creation • Service design methods used in the development process
Understanding customer needs	• User information utilized throughout the development process • Development is based on the customer needs and 'value in use'

Figure 21 Change factors for development process

In the research literature, the service design is interlinked to service strategy, service innovation and implementation by bringing the strategy and innovative service ideas to life. It is a cross-disciplinary activity that crosses marketing, human resources, operations, organizational structure and technology disciplines. The common viewpoint of researchers (Lockwood 2009, Ostrom et al 2010, Miettinen & Koivisto 2010) seemed to be that, in service design, the focus should be on customer benefit; the innovation process begins with understanding what the customer wants and ends with the creation of what they will buy.

Co-creation with customers, on the other hand, is the best way to ensure the quality of the service or product. Customers and users are an essential source of information, innovation and creativity, and this information should be used throughout the development process. Using co-creation with customers and open innovation are the future enabler for companies to be successful, because no company can afford to rely only on its own ideas anymore. (Chesbrough 2006; Brown 2010; Hyysalo 2006.)

2.5.3 Execution priorities; improving service experience through co-creation

Execution priorities	
Change factor	Description
Users co-creating value	• Users are involved in co-creation throughout the development process
Immaterial Property Rights	• IPR clarified and rewarding for good ideas embraced
Empowerment - employees as an asset in service development	• Employees are involved to co-creation and empowered to participate • Employees are treated as internal customers • Right motivators in place
Open communication	• Open communication across the organization • Information sharing

Figure 22 Change factors for executing co-creation

The change factors defined from the execution priorities are concrete enablers of co-creation to improve the service experience. These factors are required after the two other groups of change factors are ensured.

As presented in the literature review, customer participation in co-created services influences outcomes, perceptions, market acceptance, and the extent of service usage. In the light of service-dominant logic, the value is no longer determined by the producer and within the product itself, but the value is perceived and determined by the consumer on the basis of “value in use”. Therefore, customers are a valuable source of information regarding what they want from a service or product, and they are experts on their own consumption process. (Edvardsson et al. 2006; Ostrom et al. 2010; Vargo & Lush 2006.)

Customers can have different roles in value co-creation depending on what area they are involved. Based on the research literature, the most commonly used collaboration type is still testing; gathering feedback about possible issues and proposals for improvements. The authors of this thesis see this as an old way of developing services and agree with the current research literature that co-creation with customers should be used throughout the development process. However, for successful co-creation users need to have a realistic understanding about the targeted goals, available resources and technical readiness. The biggest advantage in user co-creation comes from learning and utilizing the information, which the developers are not aware of in the beginning of the collaboration. Secondly the results need to be visible for the users,

and they must be rewarded for their participation. User collaboration takes time and requires investments. (Edvardsson et al. 2006; Holopainen & Helminen 2010; Hyysalo 2009.)

Even co-creation is presented as the key to future success for the companies, the increasing dominance of the service economy has created also new challenges such as protection of knowledge. Co-creation with external resources increases the risk of unwanted information leaks, and companies should protect the information with immaterial property rights (Hipp & Herstatt 2006). Due to some of the known downsides of using external resources in co-creation, the authors of this thesis wanted to understand also if, in addition to external customers, employees could be used in co-creation. Based on the research literature employee contribution can be seen not only by executing the company strategy, but also as internal customers. For example, utilizing internal customers (employees) in testing is a way to test services and products already in early stages of the development process, speed up the development process and save costs. (Harting 2008; Palmer 2005.)

Empowering employees to have a hand in owning and evolving service is one of the challenges when they do not always have a direct role or full responsibility of the service. Based on the literature review, this requires high motivation and commitment from employees. Management has a major role in motivation, and it cannot be given to someone like an assignment. Vision and leadership are not only important assets in creating the company culture but also motivating (Deeprose 2003). Part of the vision and company culture exist the company values; management as leaders should live the values of the organization, serving as role models for everyone. This includes also being willing to roll-up your sleeves - leading by example.

In the motivation theories of Herzberg and Maslow rewarding is mentioned as one of the important motivators. Nevertheless, it was emphasized that companies shouldn't have their incentives tight to only financial and operative metrics, but award employees also when they perform well in the field of service. Rewarding should be based on organizational values and goals, and because different rewards motivate different people, management should involve employees in designing the reward system.

One important part of enabling and motivating is to enable right tools – materials and equipment - for the employees (Donahue 2005). Internet and other IT systems have

created efficient support systems for many companies. It is important that employees have access to customer data, and they can quickly solve customer's problems in different parts of the organization. This will increase commitment among the employees. (Grönroos 2007.)

Open and two-way communication is the key to empower employees. The authors of this thesis agree on this and emphasize the importance of sharing information; in open communication also listening is in a key role. Open-book communication helps employees across the organization to understand what is going on in the company (Case 2005). This could also be described as creating a sense of 'we are all in this together'.

After summarizing the findings from the literature review, these change factors are used as the foundation for evaluating the case company. The next chapter 3 presents the actual case study and more information about the research approach and methods used in the study. Chapter 4 concentrates to present the data assessment and analysis of the study.

3 EVALUATING THE THEORY IN PRACTICE

3.1 Research approach

This study is a single case study, using mixed methods of qualitative research such as literature and documentation, semi-structured interviews, company database and participative observation. The research approach of this case study is deductive and exploratory; starting with a review of existing research and chosen theoretical frame work to test it in practice, in the case company. The study is finalized with an analysis and conclusions answering to the research questions.

Exploratory research approach is defined to be a flexible method which aims to find new insights into a certain phenomenon. The key characteristic of exploratory approach is that the solution is built on new information gathered during the process. These pieces of new information may also change the direction of the study. (Ghauri & Kronhaug 2006, 56; Saunders, Lewis & Thornhill 2003, 478.) The exploratory approach is used for this case study because of its flexibility, and because the research problem

was more or less evident in the beginning. The findings and development proposal are based on the information received during the research process. This study also aims to test the findings in real life and find new insights into the phenomenon.

Qualitative research methods were developed to enable researchers to study social and cultural phenomena (Skinner 2002), but are also one of the most commonly used methods to study business economics (Koskinen et al 2005). Qualitative studies include action research, case study research, textual analyses and ethnography (Skinner 2002).

Case-study as a qualitative research method is described by Yin (2009, 18) as "*an empirical inquiry which investigates a contemporary phenomenon in depth and within its real-life context*". In other words, case study is used to understand a real-life phenomenon in depth. Case studies rely on multiple sources of evidence, and even case study is categorized as a qualitative research method, it can also include quantitative evidence. (Yin 2009, 98, 101-106, 114.)

Case study research includes both single and multiple case studies (Yin 2009,19). According to Ghauri and Gronhaug (2010,114), a single case study concentrates to observe a single group or event at the single point in time. Single-case study was chosen as a method for this study because it concentrates to evaluate the current state of one specific company against the related theory. According to Flyvbjerg (2006), a single case study can be used to generate and test a hypothesis, but on the other hand, is not limited to these only. He also emphasizes that the force of a single example is underestimated as a source of scientific development.

If qualitative methods are compared to quantitative research methods, quantitative methods are most commonly used by physical scientists, although social sciences, education and economics have been known also to use this type of research. It is different from qualitative research, because of using a range of mathematical and statistical techniques to analyze data. (Shuttleworth 2008.)

This study uses qualitative research methods, but in addition some quantitative data results from the previous internal studies conducted by the case company are used as comparative data. The data collection during this study does not include quantitative methods.

The theoretical framework chosen for this study is based on the service sciences research priorities defined by Ostrom et al. (2010). The framework and chosen research priority are presented in the beginning of the chapter 2: Literature review of service development.

When using many different research methods the more reliable the gathered data is. On the other hand, using several different methods also widens the research and increases the amount of work and analyzing the results becomes more difficult. Because of this it is important to ensure that the chosen methods are supporting each other, and they serve the final analysis. (Vuorela 2005; Hirsjärvi & Hurme 2001; Yin 2009.)

Yin (2009) presents the six sources of evidence for case studies, which he sees as the most relevant for this type of research. In this study, the following data sources of those six were used (Yin 2009, 101-113; Koskinen et al 2005, 77-154; Eskola & Suoranta 2005, 84-98,117):

- Documentation, literature and previous studies
- Electronic databases
- Interviews
- Participative observation

During the research process ensuring the reliability and validity of the study is important to ensure the quality of the research (Koskinen et al 2005, 253-254). The methods of ensuring the reliability and validity of this study are presented in the next chapter.

3.2 The reliability and validity of the case study

According to Koskinen et al. (2005, 253) the reliability and validity of a research should always be evaluated already from the beginning of the research process in order to increase the quality of a research. They also state that validation of qualitative data is more difficult than for quantitative data due to possible changes in the company status. There are some commonly used tests to evaluate the quality of a case study (Yin 2009,

41; Koskinen et al. 2005, 258-259). These tests are constructed validity, internal and external validity and reliability.

Construct validity can be increased with three tactics usually during the data collection phase; use of multiple source of evidence, using the chain of evidence and having key informants reviewing the draft case study report. External validity as a second test validates the usability of the study findings and whether the results can be later generalized. This test is mainly used in research design phase. The third test - reliability - means that the results of the study can be reproduced with the same findings and conclusions by another investigator. This test is effective in the data collection phase. Internal validity is the fourth of the tests and is mainly for explanatory case studies and not applicable to exploratory studies. This means internal validity as Yin describes it, cannot be tested in this study. (Yin 2009, 40-45.)

Another approach (Douglas 1971, modified by Grönfors 1982) to ensure the quality and validity of the study is to first of all write systematic descriptions how the research process has been conducted. Secondly it should be described how the materials have been checked, using for instance triangulation or by changing data collection methods. If any differences in results would be found, the possible reason should be investigated and explained. Thirdly the influence of the researcher and organization to the results should be considered. (Koskinen et al. 2005, 258-259.)

Yin (2009, 114 -124) also emphasizes the importance of the three principles to increase the quality of the study; multiple sources of evidence (converging on the same facts and findings), a case study database (a formal assembly of evidence distinct from the final case study report), and a chain of evidence (explicit links among the questions asked, the data collected and the conclusions drawn). According to him the quality of the study is substantially higher if these three principles are used.

To ensure the validity of this study, the three tests applicable for an exploratory case study (construct validity, external validity and reliability) were used during the research process. To improve the quality of the study, as suggested by Yin (2009), a case study database was created to support data collection. The case study database includes interview notes, interview transcriptions, internal and public documents. Secondly the data for the study was gathered from multiple source of evidence, and thirdly triangulation was used during the data gathering and analysis. Triangulation is a method of

cross-checking the data gathered from multiple sources and to find regularities or in other words same results from the research data (O'Donoghue & Punch 2003). Triangulation offers a more detailed and balanced picture of the situation (Altrichter, Feldman, Posch, Somekh 2008).

In addition, other studies conducted inside the case company before or simultaneously with this study were used to get as wide sampling for the data evidence as possible (triangulation). Some of these studies were classified as company confidential and cannot be directly used in this study.

3.2.1 The restrictions of a case study as a research method

The restrictions of a case study as a research method presented by the literature are mostly related to the statistical reliability and validity. It is presented that case study as a method can be used to generate but not test hypothesis and that generalization would not be possible based on a case study. (Gummeson 2000, 88.) Eskola and Suoranta (2005, 64), on the other hand, state that the extensive data of a qualitative study enables endless analyzing, and due to this, a study should be connected to a theoretical framework.

As advantages of the case studies they highlight the versatility, which means case studies can be used for different type of researches. Together with Gummesson (2000) they agree that one of the challenges is the difficulty of analysis if the sample is too small. The data collection and analysis should be started with a smaller sample and then extend it later in the process. (Eskola & Suoranta 2005, 144-145.)

These restrictions were considered by the authors of this thesis during the case study planning phase. The case study as a method was not causing any challenges for the study. The possible challenges and restrictions were more related to the availability of the data and case company resources, to organizational changes in the case company during the research period or confidentiality of the gathered information.

The research process of the study is presented in more detail in the next chapter. Chapter 3.3.1 discusses the process and methods of data collection. The methods and process of analysis used in the case study are then following in chapter 3.3.2.

3.3 Research process

The research process of this study (figure 23) was divided into six main phases; Selection of the research topic, literature review, planning and execution of data collection, data analysis and finally creating the proposal based on the findings and concluding the study.

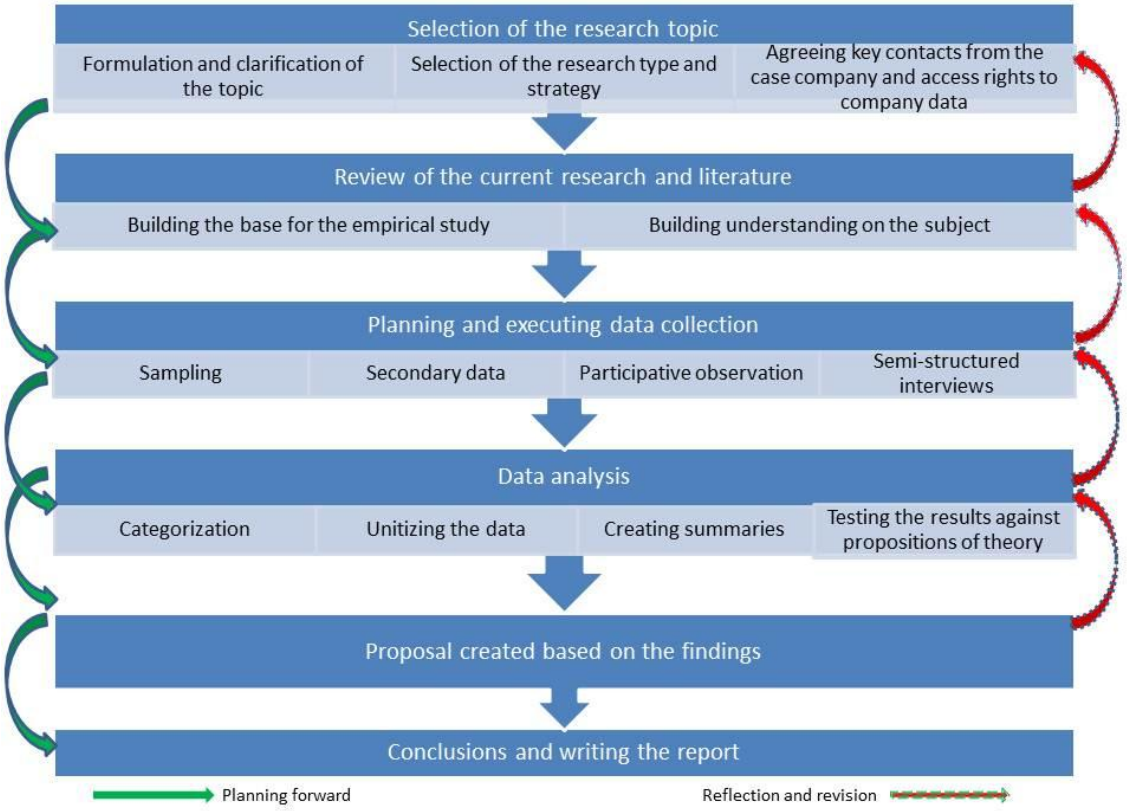


Figure 23 Research process of the study

The figure 23 above illustrates the different phases of the research process including some of the subareas under the main phases. The progression of the research is described from the top down, and transformation from phase to another is displayed with blue arrows. The green arrows on the left side of the process present the direction and steps of planning the study forward. On the right side of the process, the red arrows

describe the possible need of revision to already made findings or decisions based on the new information.

The research process was started by selecting the topic for the study. The authors of this thesis wanted to have an opportunity to use all the learning from the Master's degree period in real life. As the service research is a rather new area of scientific research and transformation from product manufacturing toward service orientation has been a discussed topic in public, the topic was chosen based on these factors. A possibility to conduct the case study in collaboration with the case company created the demand for this study.

After the topic had been defined, the next phase was to clarify and formulate the topic. At this phase, several meetings were held with the case company to gather understanding of the company needs and problems, which could be used to create the research problem and research questions for the study. The study was agreed to be a continuation for an internal program executed earlier, and to help the company to find new, future possibilities for their service development. Key contacts from the case company to assist the authors throughout the study were named and committed. Also, access rights to company data and the way of conducting the participative observation during the study were agreed.

Research type and strategy were planned and chosen based on the demands and targets of the study. The qualitative single case study was found the most suitable research type and deductive and exploratory approach was chosen to be used. The study would be based on the understanding and propositions of the current research of service development and these findings would be used to create the plan for data collection.

Before the empirical part of the study, the authors conducted a comprehensive literature review to build understanding on the subject. To be able to scope and structure the review, a theoretical framework was defined. The material for the literature review was chosen from the research literature, previous studies, and digital sources like articles and also by attending scientific seminars. Based on the literature review the authors were able to define the required data collection methods and start planning the next phase of data collection.

The research process phases after literature review, including data collection and analysis, proposals based on the findings and conclusions, are described in the next chapters.

3.3.1 Methods of data collection

Research data used in this case study was gathered from four different sources of evidence. All of these data sources were used as comparative data for other sources to provide the highest possible reliability for the analysis. The planning phase of data collection included also sampling, which is required to define the right sample group for the data collection. Saunders et al. (2003, 152) state that it is easier to analyze data from a predefined group than larger population. They also emphasize sampling saving time; when data collection is more manageable with fewer people, also the results are available faster. The importance of sampling is also emphasized by Ghauri and Gronhaug (2010, 138-.139) because of the cost savings and time effectiveness. They continue that deciding a relevant population may not always be easy and it is important to define who or what about the information is required. However, the sample should represent the whole group.

In this study, sampling for the data collection was conducted based on the chosen theoretical framework so that the data used would cover these priority areas as comprehensively as possible. Sampling was used, first of all, to define the secondary data sources and secondly, to define the sample groups for the interviews. The interviews were planned so that the data can be categorized and sampled for the analysis.

Usage of secondary data, in addition to interviews and observation, is commonly used in case studies. Secondary data can include both quantitative and qualitative, either in raw or compiled format. (Saunders et al. 2003,189.) The secondary data chosen for this study included documentation, public articles, data from the company database and previous studies conducted inside the company. Most of the secondary data used was already compiled and included both quantitative and qualitative data.

Documentation

Several types of documentation such as company reports, internal communication and previous internal studies, in addition to public articles and studies, were used to create

a foundation for interviews and to support findings from other data sources. All internal documentation delivered by the case company was communicated to be confidential and cannot be included in the study directly. Some of the previous studies used as a source of evidence were public and used as comparative data in this study.

Company database

Company database were used to define the target groups and persons for the interviews. Information about service testing process and methods was also available in the company database. The database of the internal service test site presented in the study offered usability reports to help sampling of the service programs for the interviews. These reports were also used as comparative data for the results from other data sources.

Usage of secondary data supported the sampling of interviewees. Before arranging the first interviews, some of the secondary data was analyzed and as used to define the questions for the interviews. During the data collection phase, the usage secondary data was required several times for revision and planning the next actions.

Interviews

Data for the study was gathered also by interviewing people working in the case company in a variety of different business units. The people interviewed had diverse functional expertise, and they work roles varied from officer to middle management and senior managerial levels. The sample of the interviewees was chosen randomly from company database. Interviewees were divided into three categories based on their relation to the service creation; 75 end-users, 15 service programs and 7 process owners. The participation rate compared to invitation sent was 32%. All together 45 interviews with 40 interviewees were conducted inside the case study company;

- Service Programs (9) – people working closely in service or product development, either as Program owner or Product Manager
- Managers / Process owners (7) – People owning the service creation processes or tools related to service and product development or user data gathering
- End-users (24) – case company employees

The interviews with service programs and process owners lasted from one hour to 1.5 hours and were arranged face to face at the interviewee's work site if possible, or with an online telephone conference meeting. These interviews were semi-structured (theme) interviews where a list of main subjects for discussion and questions was sent to the interviewees before the actual interview. This way they knew what subjects would be discussed during the meeting. The questions included both closed and open questions.

Semi-structured interviews can be seen (Gillham 2005; Vuorela 2005; Yin 2009, 106) one of the most important ways of conducting a research because of its balance with flexibility and structure and the quality of the data obtained. These researches emphasize that compared to other interview methods like online surveys or e-mail interviews its costs are much higher because of the amount of preparations required, level of analysis and interpretation required. Gillham (2005) and Vuorela (2005) both present the following context for semi-structured interviews. First of all the same questions are presented for all interviewees and approximately the same interview time is allowed in each case. Secondly the form of questions goes through a process of development to ensure their topic focus. To ensure equivalent coverage interviewees are prompted by additional questions if they have not dealt spontaneously with one of the sub-areas of interest.

To ensure as high participation rate as possible, e-mail interviews were used instead of face-to-face interviews for the end-users (employee). This was because many of the employees were not able to join face to face interviews or a telephone interview. An e-mail interview was offered them as an alternative to participate globally. E-mail interviews are less time consuming than telephone or traditional face to face interviews and because of this can involve more participants globally in a short period of time (Gillham 2005). The end-user interview questions were aligned with the interview questions for service programs and process owners, to find either uniformities or possible differences between these three groups.

The figure 24 (below) describes the discussion themes of the interviews. In addition to these three main areas of discussion, some general discussion about the study was presented at the beginning of the interviews. As the figure 24 shows, the themes are following the main research priority areas defined in the theoretical framework.

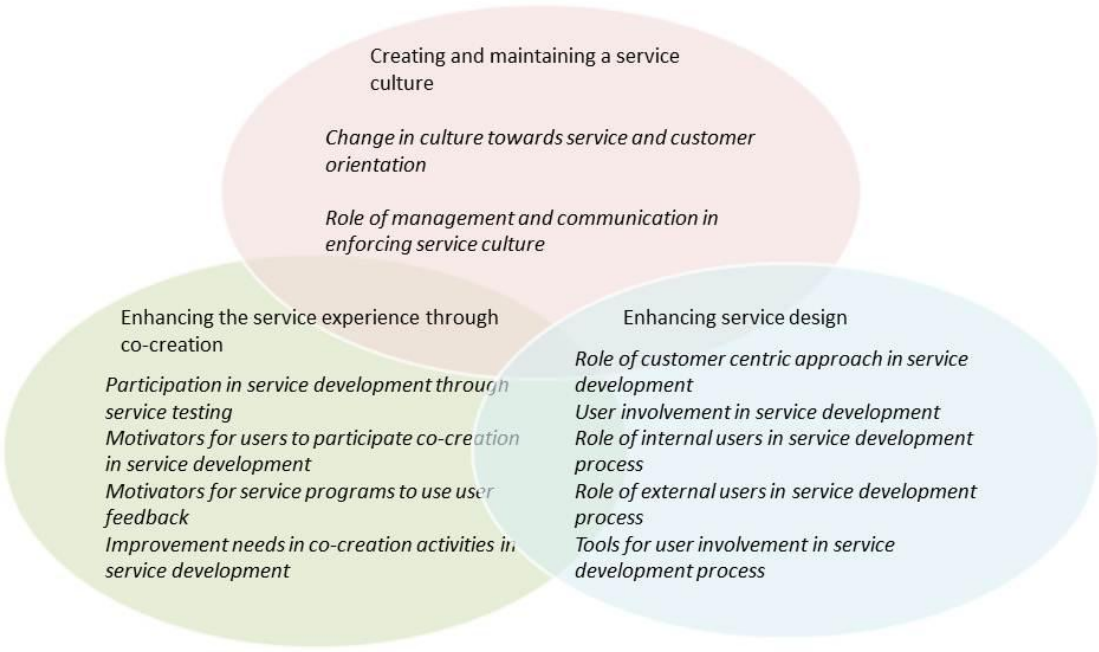


Figure 24 Discussion themes of the interviews

These interview themes and their purpose are discussed in the data presentation and analysis part in chapter 4. The fourth source of data, participative observation was used throughout the research process. In enabled wider understanding of the company business and the current state of the transformation. This phase of the research process is discussed next.

Participative observation

Data gathering through participative observation was conducted by both authors throughout the research period. Participation to the company activities enabled participative observation. Purpose of the ethnographic (participative) observation is to describe different operational practices and to be able to construct a comprehensive understanding of them. Conceptualization is done by participation to the situation or presenting a detailed description of them. (Koskinen et al 2005, 77; Eskola & Suoranta 2005, 98-99; Yin 2009, 111.)

In this case study, the participative observation was arranged by the case company by inviting the authors of the study to the service development work as observers. The authors observed the daily work of service programs, by attending some of their development projects. The authors acted also as end-users by testing the services through the internal test site.

Data analysis was started already during the data collection phase and continued alongside with the collection. Based on the analyzed data it was evident that some revision was required for the research process and planning the next actions. Some additional meetings were arranged with the interviewees to get more specific information. Methods used for data analysis such as categorization, unitizing the data, creating summaries and testing the findings against propositions of theory are discussed next.

3.3.2 Methods of data analysis

Analysis of qualitative data is seen as the most difficult aspect of conducting case studies. Typical challenges with conducting case studies are the intensity of the data collection process and the overload of information obtained. To be able to organize and systematically review the information different techniques need to be used. Using a general analytic strategy for the study helps to define the tools for the analysis. (Yin 2009,127; Eskola & Suoranta 2005, 145; Koskinen et al 2005, 30-31,60.)

Yin (2009, 130-134) presents four different strategies for the analysis; relying on theoretical propositions, developing case descriptions, using both quantitative and qualitative data and examining rival explanations. From these four, a combination of two was used in this study: relying on theoretical proposition and usage of both quantitative and qualitative analysis.

Relying on theoretical proposition means that theoretical orientation and propositions that have formed the design of the case study are guiding the analysis. It helps to focus attention on certain data and to ignore other data, he continues. Usage of both quantitative and qualitative analysis can be relevant to the case study if the data covers the behavior or events that the case study is trying to explain, and the data may be related to an embedded unit of analysis within the broader case study. (Yin 2009, 126-133.)

Analysis in a qualitative study is often concurrent with the data collection phase rather than subsequent to it. Analyzing the data is a process which begins by structuring the data based on the chosen themes or questions. After this, the feasibility of the data based on these themes is analyzed more deeply. This may require re-definition of the themes because the results may require a different kind of interpretation than the original themes offered. During the continued analysis, the data will be more focused, and new conclusions can be made. To support these findings, new data will be gathered, and again new conclusions can be found. (Yin 2009, 126-127; Ghauri & Gronhaug 2010, 199.)

In this study, the case company was analyzed from two perspectives. Firstly, following the findings from the literature review, the case company was studied closely to understand the current state of the company in the transformation from product- to more service- and customer-oriented business logic. Secondly, taking a forward looking perspective, the possible future opportunities and challenges identified were studied by analyzing the factors which employees experienced as the most influential for the future. The recommendations and concrete proposals on how to address the identified challenges and future opportunities are presented for the case company as an outcome of the study.

Categorization

The first action conducted for the data was categorizing. This means structuring the data based on relevant categories or themes (Saunders et al. 2003, 381; Eskola & Suoranta 2005, 150). In this case study the categorization was based on the predefined themes from the theoretical framework; creating and maintaining a service culture, enhancing service design and enhancing service experience through co-creation. The interview questions were following the same categories which made it easier for the data analysis. As presented earlier in the study, the interviews were conducted in the case company as face-to-face, telephone and email interviews. Written notes were used to record the data during the interviews.

During the analysis, all interviews were transcribed, and some of the Finnish speaking interviews were translated. After transcription, the data was categorized based on the pre-defined themes. The answers were classified by type and partly coded to enable usage of quantitative analysis and comparison e.g. tables. All data collected from different sources were categorized under these themes.

Unitizing and coding

The next action after categorizing the data was unitizing the data which according to Saunders et al. (2003, 381) means find the relevant information and to screen out unnecessary information. The categorized data was transformed to PC into Excel-tables. During unitizing the data was reorganized and coded to enable creating summaries and quantitative results for the analysis. According to Ghauri and Gronhaug (2010, 200) the codes can be used to label, separate and compile the data to be able to understand and generate the theory.

Summaries

The third method of analysis used was creating summaries from the categorized data. These qualitative text analyses can be presented both with quantitative and qualitative results such as charts and explanation of key points emerged from the data (Saunders et al. 2003, 386; Eskola & Suoranta 2005, 164). Also possible relationships between these summaries were evaluated.

Testing the results against the propositions from the theory

On the final phase of the data analysis, the summaries and results were analyzed against the propositions defined from the literature review. During this phase, the authors wanted to understand how these propositions were realized in the case company and what kind of conclusions could be found based on this comparison. Data results from different sources such as interview results, documentation data and results from the previous studies were compared against each other. This phase of analysis is presented with the results in chapter 4, including the development proposal for the case company.

For the case study it is essential to understand the case company and its industry, these are presented in the following chapter 3.5 before entering the study data assessment and presentation in chapter 4. However, as the case company has required classifying all information related to it secret, the company and industry presentations are screened out or partly removed from the public version of the study report.

4 PRESENTING THE STUDY FINDINGS AND ANALYSIS

In this chapter, all gathered research data from the case company is reviewed and analyzed against the theoretical framework. To be able to evaluate the data against the theory, the data assessment has been divided into three areas defined and presented in the theoretical framework (chapter 2);

- Strategic priorities of creating and maintaining service culture
- Development priorities of enhancing the service design
- Execution priorities of improving the service experience through co-creation

Under each of these areas, the change factors defined after the literature review (chapter 2.5) is used to evaluate the case company. Based on the findings a development proposal for the case company is presented to conclude the data presentation and analysis.

4.1 Research data presentation

The findings relevant to the research framework are discussed after each question theme. The findings from the statements of the three different stakeholder groups in service/ product creation are evaluated together in the same chapter. This was done in order to acknowledge the similarities and possible differences between the parties in the service creation process and their interpretation of the possible success factors and challenges related to the research topic. The citations from the interviews serve as illustration of the findings. Each stakeholder group data is presented separately to emphasize the certain findings tenable for the group and to keep the structure of the study as clear as possible.

The following abbreviations are used to identify from which stakeholder group the interviewee is:

[SP 1] – Service Program, interviewee number one
[PO 11] – Process owner, interviewee number eleven
[EU 16] – End-user, interviewee number sixteen

These abbreviations are used to enable the anonymity for the interviewees as no names or specification of the service/ product programs could be used. Only the stakeholder group, role in the organization and number of the interviewee are presented (Appendix 1.).

4.2 Creating and maintaining service culture

In this chapter, the first group of change factors is used to structure the data presentation. These factors are related to company strategy, management role, the importance of company culture and communication and organization.

4.2.1 Case company corporate and service culture, values

The case company has had a strong company culture and values as corner stones for everyday business. The company values were renewed before entering the service business as a result of wide re-planning with the employees and management. The key values in use are supporting the importance of doing things together – as one, engaging people and customers to the business, innovation and keeping the people and humanity as the foundation for everything.

As defined in the literature review by Grönroos (2007), one definition for company culture is shared values and beliefs that dwell deep in the company, providing members the feeling of being part of organization and guiding how to behave. Values are always part of the culture, and although they can't be seen all the time, they are always there. In line with this proposition, one of the success factors for the case company has been the strong culture and feeling of "We spirit", which has combined the employees together as a large family. However during the case study research period there was a clear change affecting the "We spirit". Many of the interviewees felt that there had been too many big changes and personnel reductions affecting the employee motivation. People have uncertainty of their and the company future and the constant changing of roles and strategic focus areas have made people wore down. At the same time, the company management has tried to build up a new strategy and strengthen the company culture to beat the constantly growing competition.

The change explained above is not an easy one even in theory; when people are asked to focus on results, speed and be accountable for their actions and at the same time employees are working in a constant uncertainty with decreasing motivation. This sets a challenge to the management; how to keep people motivated and retain the talent inside the company? According to Grönroos (2000) strong shared values have a positive impact to the performance of the employees. Employees dedicate themselves more to tasks and ways of working which are supported by the shared values. Outcome is better as people are motivated.

When implementing a service strategy in the company, all layers of the organization will have to be involved, and as presented by Grönroos (2000), extremely important is that all employees have an interest in services and value good service. One of the actions to involve employees to co-creation and to build up service culture inside the case company was started already 2009. The attempt was to improve the service creation process by getting feedback and ideas from internal users. These actions were based on the internal study executed inside the case company between September 2008 and October 2009. The purpose of the internal study was to improve the ways of working across the team boundaries and try to solve some of the found issues related to service business and processes.

One of the development areas was service and product testing and how to utilize customer feedback more efficiently. It was proposed that services and products should be tested jointly, and customer feedback should be utilized more already in early stages of the development process. Internal resources were found important to give feedback. After the study, a program with common process and tools was created to involve employees to service testing before testing in public and the final service launch. Everyone was given the opportunity to participate and contribute to how successful company services will be.

In spring 2010, after 6 months of operating, the situation with the program was that only some of the employees were registered to the program and testing services. Only some of the service lines were using the new environment for testing or utilizing the feedback they received. One year later, 2011 the amount of in-house developed service was cut down substantially and the focus moved to a few core services. Most of the services are now (2012) developed by external 3rd party developers. Instead of

building a wide offering of own services, the case company has changed its service strategy to use partners.

4.2.2 New program for employees to co-create

As presented in the previous chapter, in autumn 2009 the case company decided to launch an internal program to engage its employees to participate the service testing.

The 'A'-program was created to get the latest solutions into employees' hands to engage them in solution use and in the development process. The marketing message gave high hopes for a new way of empowering people: "*The A- program empowers all of us to use, improve and spread the word about our products. By participating in the program, we not only have the chance to upgrade our primary work tools and enhance our lives with exciting services, we all play a crucial role in helping create exceptional experiences for our customers around the world*."

It was communicated that each employee could register to participate in the program. A personal invitation email was sent to everyone, but the program was started only one country at a time. When the communication about the program started, it might be that employee read and heard about it, but they were not allowed to join the program yet. When the employee's country was joining, everyone was sent a personal email invitation to join the program.

Each participant was supposed to get one of the latest products and start testing new services through an internal web site. Program participants were requested to give feedback, on services they tested, through the discussion forum in the website and to contribute to the A-program wall. R&D teams would use the website to collect the feedback, for further discussion with the users and utilize it in the development process.

To get a new product, there were certain requirements such as; one had not received a services capable product within the last 12 months.

As a participant of the program, one would not only help refine the solutions offering but would also be recognized for their participation through different levels of participation. One will move up, or down, through the levels depending on the ongoing contribu-

tion. Top participants may also be asked to join special focus group studies to improve the solutions and better understand consumer needs.

Program status after 12 months operating

The A-program was created to get the latest solutions into employees' hands to engage them in product and services use and in the development process. The value of this kind of employee engagement was realized, but the situation after 12 months operating was seen a bit stagnant.

The user registration was very high during the few first months, but it has slowed down and had stayed about on the same level after June 2010. Only 14 percent of the employees had participated in the program, and only part of them was actually testing the services.

Continuation of the program and eligibility factors would be assessed based on the program's utility in employee engagement, solutions understanding and usage and participation rate. Continuation of the program was planned to be reviewed each year.

In the end of 2010, all employees were still welcome to register to participate, but it was not possible to get a new product through the program at that time. After the first product distribution round, the program itself didn't offer them anymore; they had to be ordered through the regular process. There was no active internal communication or marketing done after the startup.

Program status in December 2011

The program status in the end of year 2011 is almost nonexistent.
One of the current owners of the program [PO12] commented: "*I must admit the A-program is in the shadows*." It was realized that to sustain the program the company had to have an on-going way to provide products to people. This was too expensive in the current business environment and there had to have a very connected way for people to interact and make that somewhat easy and less owned by all the individual units in the company, which also have not been ready to be embraced yet.

"*There has been some discussion about reviving the program and getting the latest products to employees again, but we do not have a decision on that option and may not expect one until mid-2012. As for any other parts of the program, effectively were disappeared.*" [PO12]

Service culture, based on the service research, is one the main starting points after strategy to become more service minded company. The authors wanted to find out how the interviewees saw success of the change in company culture towards co-creation and service mindset. Did they know about the A-program and how did they see it supporting the service mindset?

4.2.3 The change in company culture towards co-creation and service mindset

Majority (89%) of the service program interviewees did not see clear change in the company culture towards more service oriented mindset or that co-creation would be more emphasized. The concept phase was seen one of the only stages where real end-users are listened.

The culture and the way of working were seen still too R&D focused, and the real end-user value is not clear during the development process: *"Everybody is just thinking the software or product from their team point of view, not from the customer's view point." [SP2]*

The importance of customer centric development is acknowledged by service programs but according to service program interviewees the current way of working is not fully supporting it. *"We have access to consumer insights but there is no clear way or mission of using it. It depends on the team and persons in it how much they want to use consumer insights in the project. "[SP1]*

In the interviews with internal users (employees), the same question about the change in company culture towards co-creation and service mindset gave similar answers;

"*No, in that we don't have a means of delivering on the mindset, even that the amount of time on presentations in the area has been high" [EU 18]*

“The change in culture takes time. In addition to embracing technical skills, we should value creativity and give credits for positive look and feel.” [EU31]

“I believe a greater change can be achieved by improving the user experience and the way we communicate our products, as well as trying the products ourselves (i.e. primary product should be a competitor one always). As for co-creation, I do not see much of it yet.” [EU 24]

When the answers of the internal users (are changed to percent, the following division of answers can be listed:

- 29% of the internal users did not see any change in the company culture.
- 42% felt that there has been some change, but not enough or that the direction is right.
- 13% was not sure if there has been any change in the company culture.
- 17% saw that there has been a clear change in the company culture.

4.3 Enhancing service design

In this chapter, the second group of change factors (enhance service design) is used to structure the data presentation. These change factors are related to service design and innovation, service development processes, understanding of customer needs and utilizing user information in the development.

4.3.1 Service development process

Service development process used in the case company follows a similar model presented by Avlonitis and Papastathopoulou (see figure 10) with development phases and acceptance gates. The user involvement is, on the other hand, following the model presented in figure 15. This illustrates the two potential phases (front end of innovation, testing and commercialization) in product development process where user involvement is used to create new, innovative concepts and later to test these prototypes. (Edvardsson et al. 2006, 155.)

The process used in the case company includes following phases;

- Portfolio planning based on the strategy and market requirement
- Concept evaluation
- Planning
- Implementation
- Commercial launch
- On Market
- Maintenance
- Ramp down

Each new service or product follows a predefined program process with relevant milestones covering the whole process from strategy to service end of life. When we talk about software development, which is one part of the process, R&D follows the Agile project management with Scrum model.

Scrum is a process skeleton that contains sets of practices and predefined roles for service or product development. The main roles in Scrum are:

- The “Scrum Master”, who maintains the processes (R&D Project manager)
- The “Product Owner”, who represents the stakeholders and the business (Product Manager or Program Manager)
- The “Team”, a cross-functional group who do the actual analysis, design, implementation, testing, and so on.

The development work is done in “sprints” which is a two week period. The project is divided into sprints in the planning phase, and service to be created is defined in the feature level as “requirements”. These requirements are saved into a product backlog, which is a prioritized list of project requirements with estimated times to turn them into completed product functionality.

The backlog is created by the scrum master together with the product owner.
Before each sprint, the deliverables for the next two weeks are agreed, and the set of requirements is taken from the backlog. If requirements in the sprint backlog are not completed for any reason during the sprint, they are left out and returned to the product

backlog. After a sprint is completed, the team demonstrates how to use the software, and starts planning the next sprint.

Scrum enables the creation of self-organizing teams by encouraging co-location of all team members, and verbal communication between all team members and disciplines in the project.

A key principle of Scrum is its recognition that during a project the customers can change their minds about what they want and need (often called requirements churn). Due to that unpredicted challenges cannot be easily addressed in a traditional predictive or planned manner. As such, Scrum adopts an empirical approach accepting that the problem cannot be fully understood or defined, focusing instead on maximizing the team's ability to deliver quickly and respond to emerging requirements. In practice, this means that new requirements can be created into the backlog and prioritized during the development process.

Agile development emphasizes working software as the primary measure of progress. From end-user user experience point of view Agile does not require user involvement during the process; this is to be defined by the project team and the program manager of the end to end service program.

4.3.2 Customer centric approach in current development

Edvardsson et al. (2006) states, that to create a successful product or service the key success factor is the ability to gather user and usage information. Hyysalo (2009) continues by saying, that investments done to gather end-user information during service design process, will pay back the costs usually already during technical implementation of the service.

Based on the interviews the importance of understanding customer need as a basis for service development has been recognized commonly across the service lines. Teams have access to consumer insight, but the process of using the data is not clear. Usage of the data is depending on the team and persons in it. Outsourced surveys, on the other hand, are not seen as valuable as involving end-users directly.

Focus of the development process is seen to be still too much on the R&D and schedules are one of the main drivers rather than the user experience. According to Hyysalo (2009), the lack of user information in R&D often means significant corrections, fixes and re-designs for already launched service and products, hence increasing the costs.

Organizational structure is not fully supporting the effective development process; the interviewees presented that there are too many silos and lack of communication and teams competing internally.

The authors wanted to see how the internal users see the aspect of the current development process and service or product offering; is it customer centric and based on the customer need?

Majority (80%) of the interviewees felt that this is an area where the case company has still a lot to improve. Similarly than the service programs, the internal users felt that the service and product development are still too much based on the R&D viewpoint. There is no proof that all features pushed by the management have actual value for the market and too often the schedules cause dropping some key improvements or features at the cost of user experience. Some of the interviewees felt that the case company competitors are better in adapting the customer needs as the base for their services.

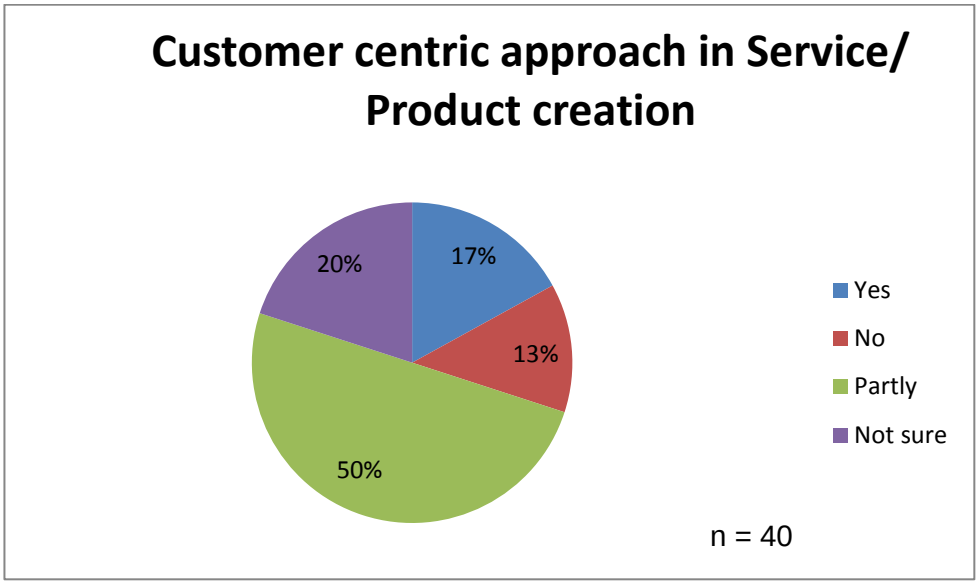


Figure 25 Customer centric approach in Service/ Product creation

“I think for some part yes, but still we are behind competitors in this area.” [EU 19]

“*Not always. Sometimes we are too slow in implementing the features that customers want (even if they are known). Schedules drive and important features will be left out.” [SP 4]*

“Nowadays more customers oriented, in the past not. Thanks to competition guiding us to right direction” [EU 38]

“In some cases the roadmap is driven more by what the organization wants to get done rather than improving the user experience in those functions that users want to use today” [EU 24]

“The problem comes from the fact that it is not neither known nor proven that the users want those features that the executives are pushing to the service.” [SP 5]

“Regarding services, I would say no. As what comes to products, yes. There has been a radical change in the design and usability, and therefore, despite the fact of being late to the market, they have a significant impact and are easily recognized by users” [EU 17]

“Unfortunately no in many cases. The user experience and ease of use is not at the same level as what our competitors are offering. Many times even to start some services is too complex. The internal test-portal would be good place to test these but how to make it easier to give feedback?” [EU 30]

User involvement throughout the development process

Involving users throughout the development process was seen important by each of the interviewees. It was seen that too often a service or a product is launched as soon as no bugs exist, instead of these users should be involved earlier, and the service launched to public in Beta to gather valuable feedback. It is hard to know when the service is mature enough, and if it is launched too early with a commercial release but bad quality, the 1st entry point is missed already. Payne et al. (2007), highlights that customer involvement should happen in every stage of the product or service devel-

opment process and prototyping & testing in the co-creation process can be viewed as part of both customer learning and organizational learning.

In addition to involving users during the development process, a clear vision of what is aimed to create was raised as the most important factor; What, how and why this is created? To create the clear vision, using more end-users during the concept phase was seen important.

"If it's a user-facing application, I don't know how you can do proper development and testing without user involvement." [SP 3]

"To be able to get good enough understanding of common needs we need large amount of people because it is always a matter of personal value." [SP 7]

4.3.3 Testing as part of service development

Service testing is part of the development process. Before a service or a new product is launched, they need to be tested several times. Most of the testing is done during the implementation phase inside the R&D. Testing includes in-country testing to make sure everything works in certain countries and markets. The case company has also a department which supports and facilitates external consumer data collection for the service and product programs after the public launch. The consumers used for this kind of data collection are registered users of the product. Data collection is mainly conducted through online surveys. The user data gathered after launch is used to improve the future products and services or the next version of the tested one. Based on the process owner of the consumer data gathering, the problem with the current model is that the feedback is not received soon enough after the launch, but only some time after. The R&D users with access to the proto versions of the products or services are used to validate the maturity before the public launch. To find major improvement areas, these results are compared to the user data gathered after public launch.

In the case company services and products were tested separately for a long time, but it was realized how important it is to make sure that these are working as one solution. Also end-user testing is an essential part to ensure that the user experience fulfills the needs of the customer. As well as Hyysalo (2009) says, most commonly used user

collaboration type is testing: gathering feedback about possible issues and proposals for improvements. Overlooking this method in the development process would not be wise as every product or service has issues and bugs and these are generally found by the user. Users also produce improvement ideas that might increase sales and usability of the product.

New B-portal to support service development

"B"- portal is an internal website designed and launched at the same time with A-program to help development teams run internal trials of the services and software they are developing (at concept, alpha prototype, or public beta/commercial phases). The employee feedback received through the site forums, surveys, statistics, crash data and usage data can help these teams prioritize their work and improve their product before large-scale investments are made or the product is launched publicly. The portal can be used at any phase of the development process.

From interviews with the process owners and B-portal creator, the finding was that some of the service programs and some other internal key stakeholders were interviewed when creating the B-portal, but not any of the end-users. There were no separate studies used for planning. After launching the portal, no marketing was done to activate or engage service programs, there was only some co-operation with a previous service portal and A-program towards users.

One of the B-portal creators sees the portal's success today as following: "*Really, without the A- program it could have been more difficult. Nowadays about 50 percent of the users are from A-program. We have about 40 000 hits (users visited), but active users are about 2 000 per month. New services affect the amount of the feedback; naturally there is more participation for new services." [PO 10]*

The interviewed B-portal creator also feels that they have enough users, and no more are needed. *"We have enough participants for a company this size." [PO 10]*

In B-portal usage, he sees differences between markets; e.g. Europe and Asia are more active than Americas. "*Might be that they don't know about the B-portal*", he continues.

Awareness about the internal test site

For most of the service programs, the internal test site (B-Portal) was introduced by a collaborative service program, or they had been participated the actual development of the site.

In the project milestone criteria list, testing is a mandatory process step. However, usage of the internal test site has not been defined as mandatory phase. 88 percent of the internal users (employees) interviewed had heard and knew what the B-portal is. But still 8 percent hadn't used it at all or didn't even know what it is. Majority (75%) of the users was registered users of B-portal and 25 percent had also joined the A-program.

"Yes, B-portal is familiar, and I know the purpose. I have used it but not recently anymore." [EU 26]

"Somehow still the B-portal was not "easy" enough that I would have been excited to participate to more tests. I wasn't sure how I could really help." [EU32]

Based on the interviews it was noticeable that usage of internal marketing or effective communication about the B-portal and new services available was minimum, if not used at all. The awareness about the test-site was based mostly on other teams or new team members telling about it.

Motivating the service programs to use the internal test site

From the service program interviews, the following motivators to use internal test site were recognized:

- **Value -** Show the real value in terms of the early feedback the service program can get by creating and publishing the success stories.

- **Management commitment -** Management commitment to use internal test site (B-portal) and feedback as part of the development process. Encouragement would be required from management to take time from responsibilities to leave feedback.

- **Internal marketing and promotion -** Internal marketing to promote the value of internal test site and the services on the site was seen as one of the main ways to motivate R&D teams. The systems should enable more detailed target groups in order R&D teams to promote their trials accordingly.

- **Incentives -** Incentives and contests were seen as optional tools to motivate the usage.

- **Part of the process**: Using the test site for testing should be imbedded to the mile-stone process,

One of the found challenges of using B-portal for testing was the lack of users if the service or software is not really special one.

"It should really be easy to sell, really good tool for R&D, product owners and product managers to test the software before going live." [SP 9]

"The R&D needs someone to filter the data. Each team should have time to answer to the feedback, this need to put as part of their everyday job and targets and part of the development process." [SP 2]

Improving testing with internal user

From the interviews, three main areas to improve user testing with internal user were raised by the service program interviewees:

- **Quality of Services -** should be more close to the end-user expectations, not the R&D expectations. Interesting service portfolio is the starting point, because if the users see value for themselves, they will participate.

- **Company Culture -** the company should encourage a culture of curiosity. Not enough people test out ideas that are on B-portal. The teams that put content on B-portal and graduate to external test site or production need to be celebrated more by the management.

- **Tool improvements -** the R&D requirements for signup and participation should be minimized to make things easier for the users. Also some UI improvements and more promotion for new services were required. *"More users are needed, users should be able to join interest groups to get information. More "push" instead of "pull"; now users have to search for relevant content. " [SP 6]*

In this question, the internal users (employees) highlighted the importance of making the participation as easy as possible for the user. It should be easy to get introduced to new services, more promotion and good communication. In addition to testing, the interviewees saw that, internal users should be utilized more, for example, in workshops to innovate new or improved services together with the service programs.

"It really depends on what we mean by co-creation. Is it giving input/feedback enough or should we (i.e. users) be involved in the decision making or development process?" [EU 36]

"More easily accessible way to get introduced to new services would be needed, now it is very much up to individual's own effort to find information about services/products and start trying them out." [EU 39]

"B-portal is one option, at least I forgot whole portal while I haven't been getting any mails, reminders, exciting offerings of the test cases. Would be better that B-portal is engaging users to join for tests, not that you have to go to the test site to find something. Also changing products is making use of B-portal more complex (moving between different software variants)." [EU 31]

"Very little promoting via e-mail or demo sessions is done nowadays, so not sure how much co-creation there really is happening currently." [EU 18]

"The R&D cannot be the bottleneck for service innovation and development" [SP 4]

Improving testing with external users

To improve testing with external users (customers), the interviewees saw that a more centralized approach with tightly controlled quality process would be needed. It is criti-

cal to manage the quality and compatibility of tested services on the user's product to avoid for instance performance decrease for user hardware.

Instead of outsourced surveys service programs would sit down the product teams with average users; "*I don't understand how a developer or product manager can build a product if they don't sit down and talk with potential customers!" [SP 9]*

From service program point of view, the external users (customers) were also seen a way to get new ideas and to avoid pulling back a service when it doesn't work. Testing overall user experience (solution) should be tested more. Even though the service is working fine and liked, the whole experience with the product can be really poor.

The same subject was discussed in the interviews with internal users (employees), and also they felt that co-creation in the future should include more concrete creation with the end-users rather than discussion of what the users may need. Co-creation with local suppliers and schools was proposed. Internet communities and discussion forums were also seen as one possibility to gather early ideas into the development pipeline.

"Journey of collecting improvement ideas and learning from the customer is difficult; it requires patience and innovative thinking. Finding the right momentum in co-creation and "out of the box" thinking might benefit both parties in developing innovative services and fantastic products with WOW effect to the customer." [EU 35]

"*External user will use products that are easy to use, relevant, evolve really quickly." [EU 25]*

"Software innovation has a due date similar to milk." [EU 22]

"Remove process barriers; we spend way too much time co-coordinating and reporting, this time could be available to do this kind of things. Secondly, appoint the rightfully skilled people to the job and let them do it and stop being overly protective of company secrets where appropriate." [EU 19]

"I guess usability or user experience tests are one good way to find out the interest level when the service is already quite in the planning phase. Questionnaires that are done well enough should give an indication about the real needs or about possible needs that users don't themselves recognize yet" [EU 33]

4.4 Improving the service experience through co-creation

The third group of change factors defined from the execution priorities are concrete enablers of co-creation to improve the service experience. These change factors include execution of co-creation, using employees as an asset in service development, motivation and empowerment to participate.

4.4.1 End-users as part of service testing

Today, the case company has two end-user groups used for testing; internal users (employees) and external users (customers). As presented earlier the channel to get internal users to test services is the internal website “B”-portal. The channel for service programs to invite external users to test their software is the official and public website.

The external test site aims to bring together developers and consumers keen on improving products and accelerating innovation. The site facilitates trials for applications, software, or services currently being developed by teams in the case company or by selected 3rd party developers. The items in the site are in the beta phase, so they are not yet commercially ready. The external test site is open for anyone and free of charge.

Under the external test site, there is a specific program, which is inviting users around the world to be involved in the creative development process. The program acts as a channel for users to share their ideas and suggest improvements that can be put into action to create the best products and services possible. The focus of this program is to trial new concepts that may only exist in prototype creations as well as trialing latest services, SW and products which may not yet available in the market or ones that have not yet publicly announced. Users may register to become a member and they will be invited to different projects based on their profile and interests.

User testing and feedback in service development process

All of the interviewed service programs assure of using user testing at least at some phase of the development process. From their answers, three different types of reasons could be found for user testing: usage of different channels, gathering feedback and hunting for bugs.

A common way of working in the R&D teams is to test their daily builds themselves until the service is seen mature enough to be released for internal or external testing. Internal testing can be used already for Alpha-level quality, and when a Beta readiness is achieved, the service can be released also to an external test site. Nowadays social communities like Facebook, Twitter, YouTube or different blogs are used to evaluate the services and products.

Those service programs using both, the B-portal and the external test site for user testing had all received feedback for their services. Howeve,r there were differences in the amount of feedback. The same challenge could be found from both internal and external testing; the more interesting services get more participants and feedback.

The responsibility of gathering and analyzing the feedback is not officially entrusted to anyone. Usually the product owner or product manager is the one responsible for following up and answering to received feedback. Only two of the interviewed service programs had more than one people responsible for gathering feedback and even 40% of the service programs have it in their targets, most of people need to do it as a side job. It was seen that there is too little time to handle the feedback gathering properly, and the area should be in each product manager's targets in the future.

All service programs analyze the received feedback, which is then forwarded to right stakeholders depending on the feedback type; bugs, improvement ideas etc. B-portal was seen as a good tool as it provides automatized reports, which don't require any further analysis.

Usage of user testing feedback was seen really valuable and improving the development process by enabling better quality products and services to be launched faster. User testing provides, for example, information about the end-user way of using the service, media or hardware.

"A lot of valuable information and feedback has been received; things that the R&D would never come to think of from the user perspective. A service can seem to work perfectly, but the user experience or user interface does not make any sense for the user. Now we can fix most of the problems before launch." [SP 5]

“Really useful for the program. Programs cannot know if the feature is really useful for the user otherwise, or they might like it as a wanted feature, but they might not like the way it is implemented.” [SP 3]

4.4.2 The end-user in co-creation

In the study, the authors wanted to understand what kind of role the end-user, internal or external, really has in the current service creation process and how different stakeholders in the process see that service mindset, co-creation and value creation are realized in the case company.

To get a better understanding about these two user groups; their similarities and differences, the interviewed group of the case company employees was selected across the different units and employee profiles. These internal users had different roles and experience level to answer the questions. The answers were compared to the results of previous user study conducted by the case company in 2010 for the external testers.

Some propositions and viewpoints about these two user groups were also raised from the interviews conducted for the service programs and B-portal creators.

4.4.3 Value of using internal users versus external users

All of the interviewed service programs agree that internal users can be seen as real end-users. Based also on the literature review employee contribution can be seen not only by executing the company strategy, but also as internal customers.

The seen advantage of using internal users in a multicultural, global company is for instance the ability to get consumer insight easily from respective markets. However, internal users can be seen rather technical: “*Most of the active internal users are highly technical or geeky and sometimes they are highly critical as well”. [SP 9]*

On the other hand, the B-portal creator sees the difference between internal and external users differently than the service programs: *“Internal B-portal has wider consumer scale, external users giving feedback are usually more technical (engineers). Internal*

users attend more easily, but externals have to have high motivation to give more high quality feedback." [PO 1]

When the same question was presented to internal users, 75 percent of them saw that internal users are as real end-users as the external ones. 12,5 percent saw that internal users cannot be treated as real end-users and 12,5 percent saw they can be partly treated like end-users. Mostly the uncertainty behind the people answering "partly" was related to either the assumption that internal users may not be impartial; they may be too positive with their answers or that they are too technical and could only be used to find bugs.

"Yes, at the end of the day we are consumers too, especially if not directly working in R&D" [EU 33]

"Yes. I think the input can even be more honest when it's done by internal users." [EU21]

"Not in most cases. I think it is very important to test competitors' products and services to be able to have enough room for comparison. Users have to have a real need for the services they use, testing them in real contexts and situations – otherwise, we incur in the same mistake of understanding them in a controlled environment." [EU 38]

"Yes, why not, but some profiling should happen: some internal users can be "too deep" in the technology, but the rest of us are normal mortals" [EU 30]

Service programs did not find many differences between using internal or external users in the development process, but all agreed that both groups should be utilized more in the future.

The found differences and advantages of internal and external users based on the interviews are presented in the table below (figure 26).

Internal users	External users
Can help create better products/ services	Can tell if the product/ service will sell and has real end-user value
Better knowledge of technologies/ products	Can bring value in terms of comparison with other vendors or competitors
More technical feedback	More feature related feedback

Figure 26 Differences in internal and external users' advantages

To understand the possible similarities or differences between external and internal users in co-creation, the following criteria was compared between these two user-groups:

- User profile (characteristics, age, gender)
- Participation level
- Motivators to participate

Based on the study (conducted by the company) for external users the user profile could be described as following: 95 percent of the users were men, average age between 25-35 years (50%). The characteristics which best describe these users were;

- The users have good technical skills; they try to solve problems themselves and usually are asked to help others.
- They like trying the latest products and services before others.
- They feel that current products don't have all the features they wish.
- They are willing to pay extra for new technologies.
- They are not afraid to try immature services, software or products.
- They can be called a technical leader, an explorer or a pragmatic leader.

Internal users chosen to the interviews for this study were 50/50 men and women, from different business units with different roles. For the interviews 75 invitations were sent and 24 participated. The user profile for internal user based on participants in the end

was; 46 percent men and 54 percent women, age between 25 – 45 years. The characteristics which best describe the internal users were:

- Technical skills of the users varied from beginner to expert.
- Working roles of the users covered several different business areas; sales, marketing, product and service development, legal, business support, R&D, corporate IT.
- Good knowledge about the internal B-portal and its purpose.
- They are used to download and install software online.

When comparing the other factors between these user groups (Figures 14 and 15) the participation level of both user groups is almost the same. From both groups, over 50 percent of the users have only downloaded the services for testing but have not given any feedback about the service.

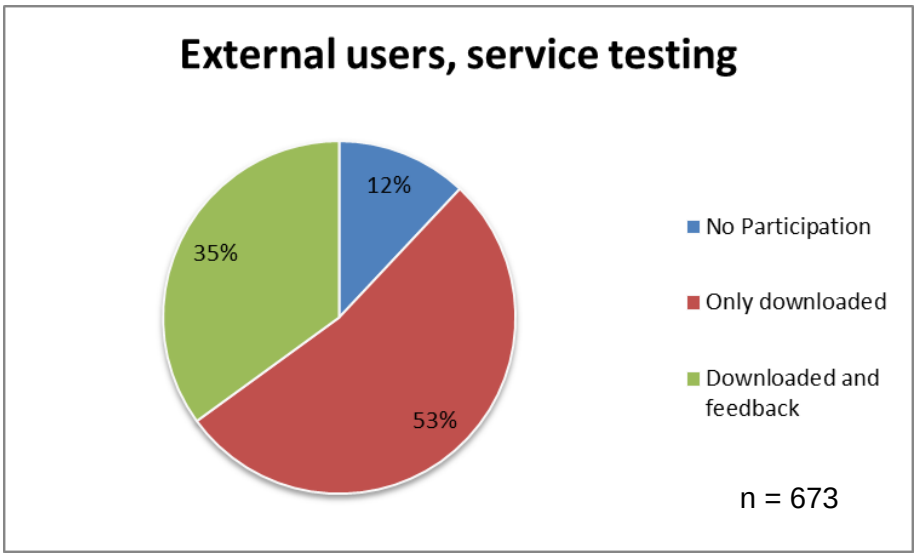


Figure 27 External user involvement in service testing

From both externals and internal users only a bit over 10 percent has not participated at all even they would have registered as users, and over 30 percent of both groups are the most active users – participating and giving feedback.

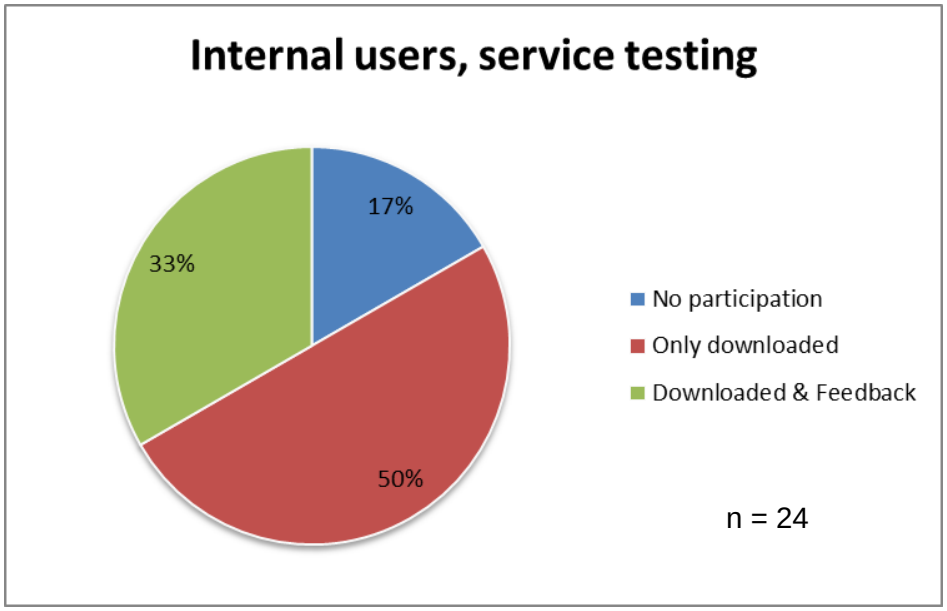


Figure 28 Internal user involvement in service testing

Also the third factor, motivators for these two groups, follows the same structure and is consistent with the rules defined in the motivation theories of Maslow and Herzberg.

When reviewing the motivators for external user to participate and to give feedback, the best motivators were emotional and value based, not related to money or other materialist incentives.

The three most common reasons and motivators of external users to participate were:

- “I get to see what’s out there and follow what’s happening in the service front”
- “I get to use the newest services before others”
- “I want the service to solve a specific need”

The most common motivators of external users to give feedback were:

- “I enjoy helping others”
- “I get to make a difference”
- “I have a specific problem I want the company to solve”

Similar priority in motivators could also be found from the interviews with internal users. The most mentioned motivators for internal users to participate service testing were:

- The service offers value to the user
- Realistic and good quality offering
- Possibility to make a difference
- Work related testing

When asked, what would motivate the internal users to participate more, the following factors or motivators could be listed from most mentioned to less mention:

- Good quality services which create value
- The culture should embrace collaboration and participation.
- Management support to use work time to test and give feedback
- Confidence that the feedback matters, commitment from R&D
- More promotion and marketing about the services such as; direct invites to mobile phone based on the interest group, internal demo sessions and workshops.
- Tools: testing and participating should be as easy as possible
- Rewards; latest product

From these lists, it can be noticed that the value based motivators were seen the best ones and direct rewarding one of the less mentioned motivators also by the internal users. In both groups the motivators related to direct incentives or rewarding had quite a small weight.

"Internal testing into your job content? Seriously, we need to change our culture to become more collaborative and engage more in these internal pilots/tests. Better accessibility, i.e. an service where all content could be downloaded. Removal of the register your product barrier, I change my product on monthly basis and I need to re-register it and get a new alpha labs certificate every time." [EU 25]

Motivating users to participate service testing

Motivators to engage internal users were discussed with the service programs; how they see the users should be motivated? From the interviews with the service programs the following end-user motivators were emerged:

- **Company culture -** Internal users should be treated like real end-users and not as a group of free testers.

- **Management support** - Management should encourage taking time from the responsibilities to participate, test and leave feedback.

- **Service portfolio quality** - If the user sees value in the application they will be involved.

- **Commitment from Service program** - Services should commit to update their services and communicate with the users. It is valuable to see that the feedback has brought value.

- **Communication** - Services and possibility to participate should be promoted more.

- **Recognition** - Weekly prizes for most active users, recognition on the intranet,

"All the general motivation rules that an early adopter needs will apply here. Things at emotional and intellectual level are more important than monetary incentives." [SP 4]

These suggestions from the service program are almost perfectly in line with the end-user answers, but what was surprising was the totally opposite viewpoint raised from the interview with the B-portal creator: *"No motivation is needed, in external people are more interested in new technologies, the reason is not necessarily to need of influencing or participating to the co-creation, but nice to try new things." [PO 1]*

After presenting the research data with a high-level analysis, the reflections on the main findings with the development proposal are discussed in the next chapter

4.5 Reflections on the main findings

In this chapter, the main findings from the study are discussed in more detail. The theoretical framework and the defined change factors will be used to structure and analyze the findings. The case company status is presented in figures in the beginning of each

priority area and compared against the factors defined from the literature review. These findings are used as a base for proposals for the company.

Creating and maintaining a service culture

Based on the literature review the transformation towards more service and customer focused business begins from the strategy and from creating and maintaining a service culture in the company. Value co-creation requires a change of strategy from “making, selling and serving” to “listening, customizing and co-creating”

Strategic priorities		
Change factor	Description	Case company status
Strategy, mission and vision	• Company strategy , mission and vision are service and customer focused. • Service strategy is created and supports the mindset of ‘listening, customizing and co-creating’ rather than ‘making, selling and servicing’	• The case company has renewed its strategy several times to be more service and customer focused • Service strategy has been established, but the realization is not fully supporting the mindset
Management and leadership	• Strong management support for service culture • Change management and leadership across the organization • Managers are leading by example	• Top management has tried to built up the new strategy and leadership is embraced, but haven’t reached the middle management level yet
Company culture - Service culture	• Company has established and adopted a clear service culture with focus on customers • Company values are supporting the service mindset • Strong internal company spirit	• Company has had a strong company culture with “We spirit” and values as cornerstones, due to recent changes and personnel reductions these are affected negatively • No clear service culture, still too R&D focused
Organizational structure	• Organizational structure and processes are supporting co-creation, customer focus and service mindset	• Organization has been restructured several times to meet the market requirements and be more customer focused, but not fully supporting the service mindset yet
Internal marketing, communication	• Internal marketing is used to create and maintain the service culture by promoting the service mindset • Promoting new services internally • Communication and feedback enhancing internal relationships	• Not used enough to maintain the service culture, • Promoting only launched services and products

Figure 29 Case company status - strategic change factors

In case company, the transformation from goods-dominant company to the service-dominant company has required a lot of work in a short time. Company has adjusted its

strategy and the company structure to meet the challenges of being truly consumer driven company. This has in turn had an impact on the employee motivation and increased the feeling of ambiguity.

It still requires work in order to increase service mindset within the company and to be able to increase the awareness that a single individual (employee) can create value for the consumer by testing the solutions. When comparing the interview answers between service programs and end-users about the change in company culture towards more co-creation and service mindset, it is evident that the majority do not see clear enough change. Interviewees felt that case company is still too product and R&D oriented, and customer centric development is not entirely supported by ways of working. Change in people's mindset takes time; transformation should enhance communication of the values and company culture in new and innovative way. In the case company, the change communication has happened mostly by top management level leaving middle management actions and reflections rather thin.

Customer centric approach is acknowledged in the case company, but current ways of working are not fully supporting that. As described in the literature by Johnston and Clark (2008), service culture as part of company culture defines the depth of service orientation, meaning that all levels of the organization need to understand and be engaged for keeping the focus in customers and sharing the service mindset. Both organizational structure and processes should support service mindset and customer focus, they conclude.

Enhancing service design

The second group of priorities and change factors presented the connection between strategy, service innovation and implementation by bringing the strategy and innovative service ideas to life. These factors are connected to service design and development.

The service development process used in the case company is following a commonly known and used development model also presented by Avlonitis and Papastathoupoulou (2006). In R&D, the project management model of Agile and Scrum has been taken into use already some time ago, and the company goal is that each product and service program would follow the same processes and models. From the participatory observation and based on the interviews, it was noticeable that there is still many dif-

ferent ways of using the same development process model. Between different services and products there have been challenges to be able to incorporate for instance the project milestones. A lot of work has been done to merge all different models and tools to function in line, and to be able to intensify and speed up the development cycle.

Development priorities		
Change factor	Description	Case company status
Service design and innovation	• Service design and innovation adapted to development • Service design is realizing the service strategy and embracing innovation	• The importance of service design and service mindset has been acknowledged, but not realized in practice • Old processes, ways of working are still guiding • Innovation , suggesting new ideas is supported
Co-creation part of a development process	• Development processes support co-creation • Service design methods used in the development process	• Co-creation has not been adapted to the development process • Co-creation used currently mainly in testing phase, rarely to innovate or test ideas • External 3rd party studies available for concept evaluation
Understanding customer needs	• User information utilized throughout the development process • Development is based on the customer needs and 'value in use'	• Case company has its own department for user information; studies and data available, but no clear ways of utilizing the information • Development seen still too R&D focused, not based on customer needs • Too tight schedules usually cause screening the user experience

Figure 30 Case company status - change factors for development process

From the customer-centric point of view, the current development process is involving the actual end-users quite rarely. The company has a lot of customer data available for the service programs which is used in the concept phase, but service programs saw more value in using the real end customer than outsourced surveys for the development process. Currently external end-users are used in testing, evaluating the service readiness in beta phase before the commercial launch. Also some usability studies are used for chosen groups of users before the launch. Involving user throughout the development process was seen important and even crucial in case of user-facing applications.

Both service programs and the end-users saw that even there have been efforts to change the service and product development to be more customer-centric; it is still too much R&D focused. Too tight schedules are causing compromises for the user experience or service features.

The company has changed its organizational structure to support more effective and customer-focused development process, but service programs saw that there is still too may silos and lack of communication and even competition between teams internally.

As presented earlier in the study, end-user involvement in the case company is mostly focusing on testing and used in some level, through 3rd party consults, in the concept phase. Utilizing end-users directly, even internal ones, is not used throughout the development process. Most of the testing during the implementation phase is done inside the R&D to ensure the level of maturity and quality before involving any users. When the service is seen mature enough, it will be launched to the internal test site for internal users and later also for external users to the public test site. The feedback received from the internal test site was found very useful for the service programs, but the amount of users was seen too small from the service program point of view. Here a conflicting assumption could be found between what the service programs saw and how the B-portal creator sees the amount of users. The B-portal creator felt that there are enough users in the portal for this size of a company. This kind of assumptions can lead to wrong conclusions and decisions.

Based on the interviews the internal test site (B-portal) was found a very valuable tool for the company and all interviewee groups felt that it has a lot of potential to improve the service and product development process if it is used. During the research period, the number of users registered to the test site did not increase dramatically, but more services did start to use the site. Current communication and internal marketing about the B-portal, for both service programs and end-users (employees), was seen minimum or even no existent. From the data, it can be seen that most of the internal users know what the B-portal is, but almost 10 percent hadn't heard about it. Both groups felt that much more communication about the portal and its real value should be done. Management commitment and support to participate testing during the work day was seen crucial, as one of the challenges to participate was the lack of time. Some suggestions were made that testing should be even part of everyone's job content. For the service

programs, using internal test-site was seen mandatory and suggested being part of the development project milestones.

Improving the service experience through co-creation

The third group of (execution) priorities and change factors emphasizes the importance of co-creation in service design and development. In the current service research, co-creation and open innovation are seen the future ways for companies to succeed. Involving the end-user is the only way for the company to really understand what their customer's needs are and what the value is their product or services are creating for the users. In the case company, real co-creation is used only rarely and only at some phases of the development process.

Execution priorities		
Change factor	Description	Case company status
Users co-creating value	• Users are involved in co-creation throughout the development process	• The advantage of involving users also in other phases than testing understood but not realized • Mainly used only for testing alpha/ beta quality services
Immaterial Property Rights	• IPR clarified and rewarding for good ideas embraced	• IPR tools available and used to protect the information and new ideas or innovations
Empowerment - employees as an asset in service development	• Employees are involved to co-creation and empowered to participate • Employees are treated as internal customers • Right motivators in place	• Internal program to engage employees to service testing launched earlier, but currently not maintained • Internal test site offers the possibility to test and give feedback about new services • Employees are willing to co-create more, but lack of management support and time seen as challenges to participate • Employees are not utilized as internal customers
Open communication	• Open communication across the organization • Information sharing	• Open book management in use • Two-way communication embraced • Internal communities for open discussion

Figure 31 Case company status – change factors for executing co-creation

The current focus of the case company on co-creation with internal users has been mostly on testing services and products before the public launch. In the theory, testing is also presented as one of the most commonly used ways of involving users in the development process. There for, the study evaluated this area more deeply but aimed to clarify the needs and possibilities in the case company for other areas of co-creation

Even co-creation was seen the area of most potential it was also the one with most of the needs to improve. Involving real end-users through innovation workshops, true testing and evaluating new ideas were agreed to be some of the needs for the future. Based on the interviews using customers only for testing is not enough, and it may be too late phase to see the real end-user feedback.

Involving external users requires time and resources, and of course there is the risk of confidential information leaking out to the public. One possibility, which has been supported also in the current service research, is to use company employees – internal users – instead of external ones. In the study, the profiles and motivators of these two user groups were compared to understand are there any differences between external and internal users. Both the viewpoint of service programs and internal users themselves was studied to understand how they see this opportunity.

All interviewed service programs agreed that internal users can be seen as real end-users for the case company. The size of the company and global existence enables the coverage of all markets and most of the consumer segments to be found inside the company. It was seen that internal users can be involved earlier and throughout the whole development process. 88 percent of internal users felt that they could be seen as real end-users, and the opposite view point of 12 percent saw that the challenge in using internal users is mostly related to either the assumption that internal users may not be impartial; they may be too positive or too technical.

When these two user groups were compared, it could be seen that the profiles of the users did differ, but only at some level. The profile for an external user was more technical oriented than for internal one. From internal user group, the balance between men and women was more balanced, when most of the external participants were men.

From the service programs' point of view, both of the end-user groups were seen to bring value to the development process, but from a bit different angle. Internal users

can be used easily throughout the process to help create better products or services, when external ones can tell what will sell and has real end-user value. From the interviewees, the profile for internal users was seen maybe more technical and external users more feature oriented, but as the study shows, it is actually vice versa. External users were more technically oriented than internal users. However, external users can bring more value in terms of comparison with competitors.

On the other hand, what was noticeable the participation level for both groups was almost the same. Also the motivators to participate were following the same structure. Based on these findings it can be said that using internal users is really an advantage for the case company, if it is used efficiently and the company management, culture and processes are supporting this kind of co-creation.

Even these factors would be in place one of the biggest challenges has been how to motivate employees to participate. People need to be motivated and feel that their contribution is valued. As presented in the data one of the actions to involve employees was the A-program. Currently the status of that program is basically nonexistent, and there are no clear future plans how to continue with it. From the interviews, it can be concluded that the knowledge about the program is not very good, and after the first disappointment of not receiving the latest product, employees haven't been too motivated to clarify what it is all about. The B-portal and feedback environment are working properly, but the information about how the feedback is actually used and transformed to service features is not available for the participants. The product R&D teams can discuss the given feedback on the program wall, but the exact usability of the feedback is not communicated. Communication and internal marketing supporting the idea of "creating value together" was encouraged.

In the study, the motivators for both external and internal users were studied. For both groups, they followed the same structure in importance, and the findings are in line also with the general theory. The main motivators and areas to improve were mentioned under all priorities, by all interviewee groups;

- Good quality services which create value
- Company culture should embrace collaboration and participation
- Management commitment and support
- Confidence that the feedback matters

- More communication and internal marketing
- More ways to participate
- Tools and processes supporting the co-creation

4.6 Proposals for the case company

As an outcome of the study concrete proposals for the case company were created to enhance the service creation process towards service mindset and co-creation. The key proposal is the idea of expanding the co-creation from the current way of testing to wider co-creation with internal users. This key proposal related to the development process alone won't be enough, and to work it requires actions to other areas like company culture, management commitment, user motivation and tools and processes.

4.6.1 Expanding the co-creation in service creation process

Most of the user data in the case company is currently gathered through studies delivered by 3rd parties or with online methods without actual co-creation with the users. Focus of involving the users has been on the later phases of the development process; testing the services or products before the launch. In case of external users (customers), most of the data is received only after the launch. As presented in the review of the current service research internal users could be used instead of external ones already in earlier stages of the development process. The profiles and motivators of both users were found very similar, and in the matter of the case company using internal users would bring additional value to the service creation process.

The value created for the company though co-creation with internal users in addition to external users can be recognized with following:

- Developed services or products are based on the user input and creating value, which is ensured through the co-creation.

- Co-creation with internal users can be used in any phase of the development process.

- Secrecy of the developed services and products is maintained.
- Internal users are easier and more cost effective to contact and engage.
- By involving the internal users they can feel more motivated and committed to company strategy and targets.
- Feedback will be received faster and earlier for the development process which will speed up the development process.
- Important fixes or changes can be done already before public launch.
- Motivation for service and product programs through successful development.
- Better quality services and products are launched for the external users.

The current methods used in service and product development to involve internal users are mainly providing feedback and user data through online systems, and not through real co-creation with users. In the current model, the first phases of the process are based on the data and studies provided by the company consumer data department and users are involved only in testing services and products either just before the public launch or while they are already in the market.

In the figure 32 (below), the blue dotted line frames the current phases of co-creation and the red dotted line in figure 33 presents the proposed extent of co-creation.

User centric design methods like workshops, interviews, observation are not currently offered or actively used for external service or product creations, but what was noticeable based on the interviews that this kind of methods are offered for company's internal IT process. Based on the interviews most of the units have been working in silos and using their own processes.

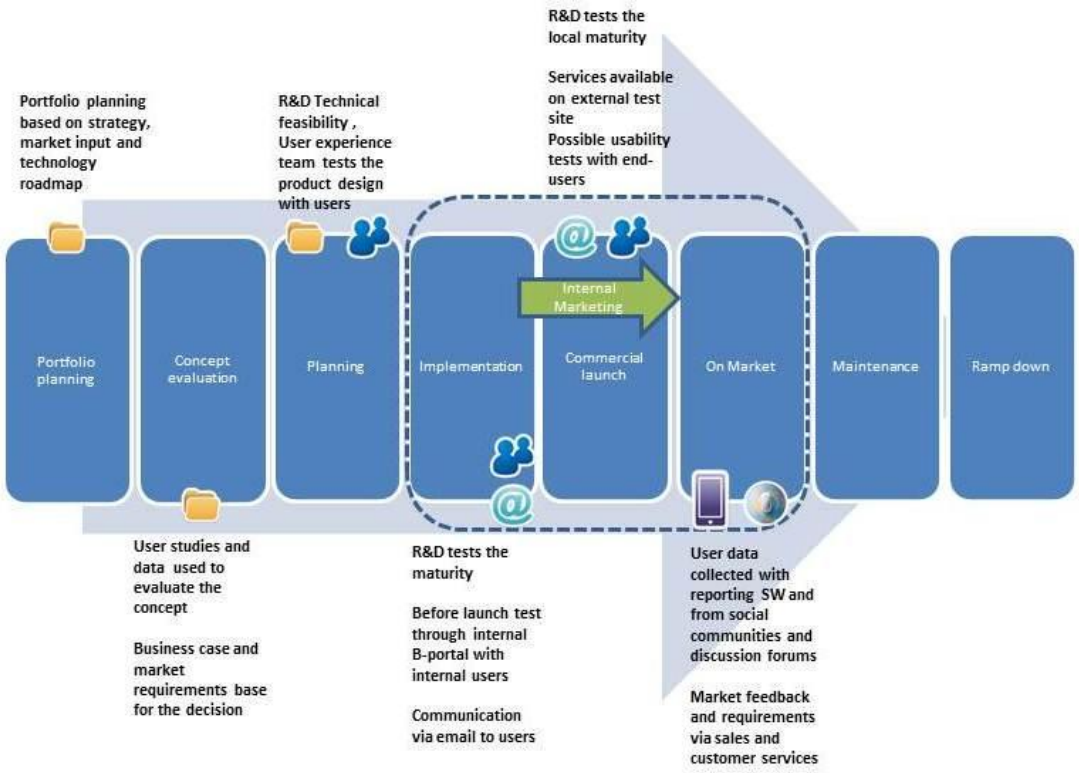


Figure 32 Current co-creation phases in service creation

The authors suggest that the existing process and methods created for the IT-process should be evaluated against the needs of service and products creation for external markets. By utilizing the existing information and lessons learned from the IT, adaption of the proposed new model (figure 33) can be done more easily and effectively.

The figure 33 illustrates the development proposal to improve the service creation process by involving the internal not only before the public launch and after, but rather involving them through-out the process. This may increase the end-user value by providing high quality products matching their needs. From case company perspective this will allow faster development process with less critical issues after product launch.

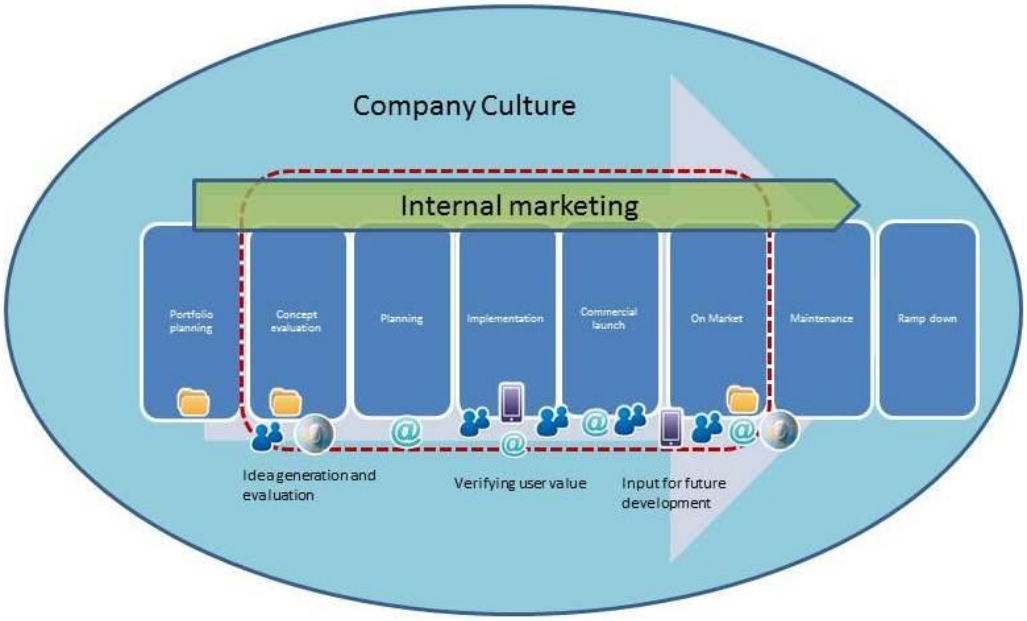


Figure 33 Proposal for improving co-creation in case company service creation

As also Payne et al (2007) presented that by involving users already in early phases and throughout the process important feedback and ideas can be received in the phase where they can still be implemented.

To understand the proposed model of co-creation in different phases of the process, it is explained phase by phase in the following.

Portfolio planning phase

Program portfolio planning inside the business unit is based on the strategy, market input and roadmap. During the portfolio planning phase cyclic portfolio level investment strategy decisions are made balancing the business opportunities and R&D capabilities in portfolio level. In the development proposal the co-creation with users is not relevant rather than ensuring the right market and user input for the decisions.

Concept evaluation phase

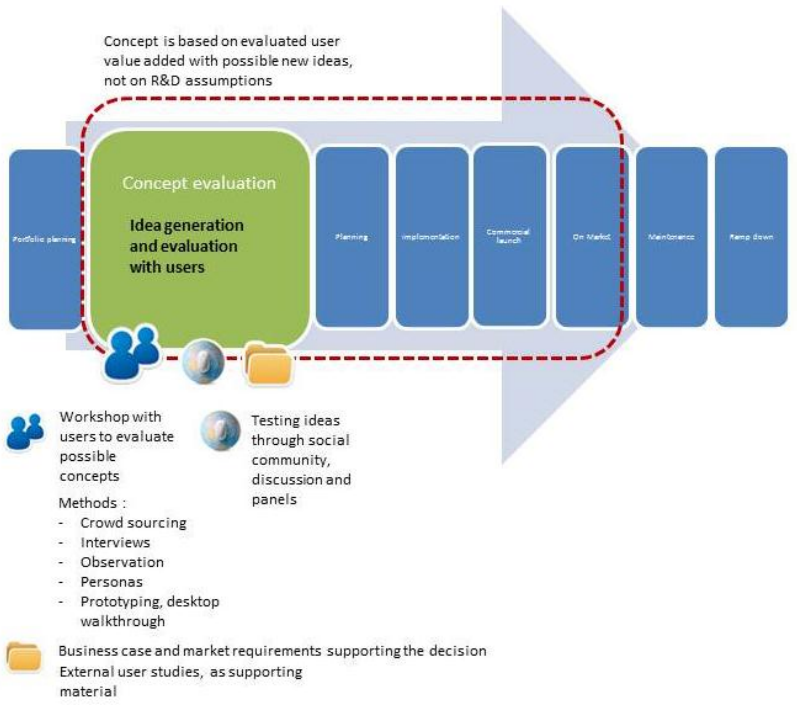


Figure 34 Co-creation in concept evaluation phase

In concept evaluation phase (figure 34) all the new concept ideas based on the portfolio planning are studied and the most promising one is chosen for further development based on the feasibility and business case. In the development proposal instead of using only 3rd party facilitated user studies or data, it would be recommended using also direct user collaboration with internal users to validate the concept. In concept evaluation phase the proposed co-creation method would be to arrange a workshop with internal users to evaluate the proposed concept or based on the high level idea ask them to define alternatives or improvements for the chosen idea. The results can be compared then to the original concept proposal. In the workshops different service design methods such as: crowdsourcing, interviews, observation, prototyping or desktop walkthroughs could be used to co-create with the participants (Moritz 2005; Miettinen & Koivisto 2010).

Examples of service design methods

From the variety of service design methods available, the following sample of methods is suitable for co-creation with users in service development (Moritz 2005; Miettinen et al 2010).

Interviews – Interviews are used in service design to hear people's opinion or learn about their experience and expectations (Moritz 2005). There are different types of interviews such as structured interviews which follow strictly defined list of questions or on the other end of the scale open interviews, where people are let to tell their own words about the subject (Gillham 2005; Vuorela 2005; Yin 2009).

Observation – With observation users and their behavior is observed, either in a person watching them or in installing cameras. This method can be used to identify how users use the service. It can be used also to identify and evaluate how prototypes work. Purpose of the observation is to describe different operational practices and to be able to construct a comprehensive understanding of them. (Moritz 2005; Eskola & Suoranta 2005.)

Personas – A persona is one fictional character that merges patterns that occur in research. Personas have a similar role in service design as character profiles. They help to see individuals and the team can reference them in different design decisions. Personas enable more detailed and individual understanding of a group of users. Personas as a method can be supported with both qualitative and quantitative research. (Moritz 2005; Miettinen & Koivisto 2010.)

Desktop walkthrough – This is a method of usability inspection where a diverse group of users is stepping through identified tasks of service. This way potential problem along the way can be identified. (Moritz 2005; Miettinen & Koivisto 2010.)

Prototyping – Prototyping is used to try and test how service ideas and components work in the context of real life. People who use it should use it naturally and under reality conditions. It also means that the service that might not exist yet needs to be put into a temporary existence. One mode of prototyping is "rough prototyping", which can be

used to represent and test ideas with anything that is available to assemble the components of a service or product. (Moritz 2005; Miettinen & Koivisto 2010.)

Focus groups – A small group of people selected to have a guided discussion about selected idea. This method is used to learn user's thoughts, opinions and feelings related to the subject. It can be used also to generate and filter ideas. (Moritz 2005; Miettinen & Koivisto 2010.)

Crowd sourcing - Another rather new and expanding concept of innovation is crowd sourcing. Crowd sourcing is based on the idea that a large crowd of people can achieve better results than even the best expert can do alone. Today anybody can participate in product development or resolving problems through social computing and social media. Most of the companies are using the social media to talk not listening. They are using it for outbound marketing; to tell about their new products. Crowdsourcing is seen the easiest way of using the social media today, but to turn that inwards is really the opportunity of innovation through crowd sourcing. Product validation is where companies normally have a focus group, and where they can use crowd for: testing ideas, virtual focus groups, creating and tracking buzz and launching products. (Brown 2010.)

The usage of workshop method is discussed more in Implementation phase later in this chapter. Another method which could be used to evaluate the concept is using the internal version of the social community with discussion forums. Current researches in the service science area support the idea of utilizing users during this phase to get end-user information and feedback. With these efforts implemented, it will have positive impact on costs already during the technical implementation phase (Hyysalo 2009).

Planning phase

In the planning phase, the program plan is created for the service or product including such as resourcing, schedules and first user experience designs. At this phase, all key stakeholders needed for implementation are named.

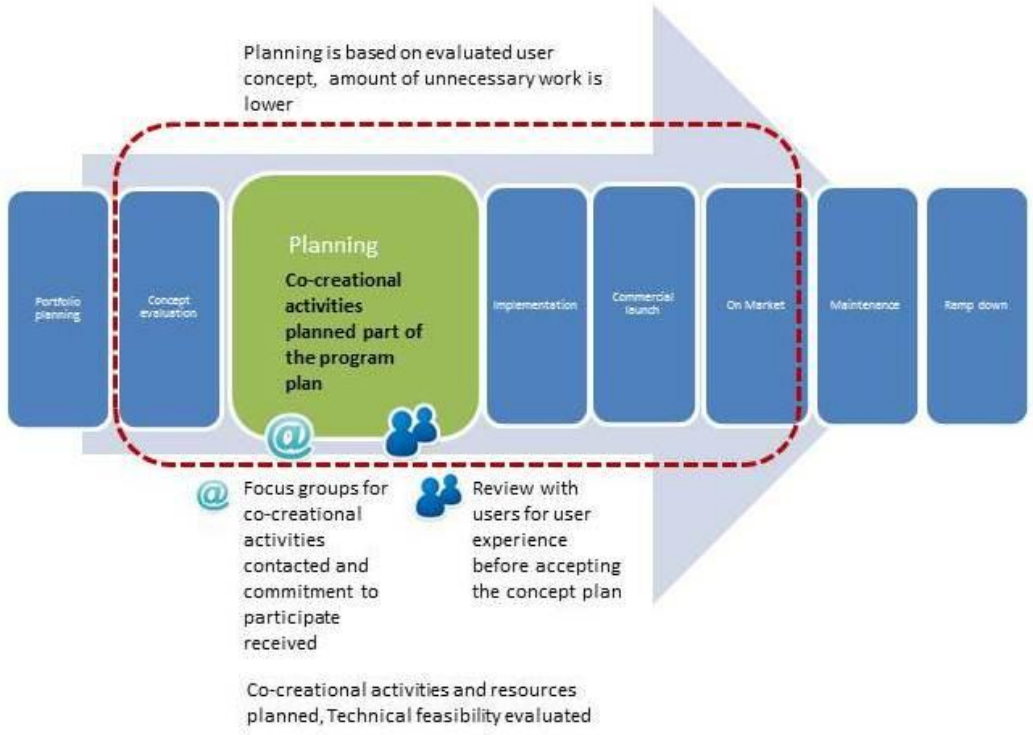


Figure 35 Co-creation in program planning phase

In the development proposal, during the planning phase all co-creational activities should be well planned to include financial aspects for instance required products, resources, tools, methods. The focus user groups for the co-creational activities should be defined, contacted and commitment to participate received. These focus groups should be aligned as well as possible with the targeted external end-user group. In case of the case company these groups can also cover different markets and nationalities through its global existence. People invited to the focus groups should be outside of the R&D.

Implementation phase

In the development proposal, implementation phase (figure 30) is the corner stone for co-creation with internal user. During the concept phase, the most promising concept has been chosen based on the user feedback and in the implementation phase this concept will be executed. To ensure the value in use, more emphasis to co-creation during this phase is vital.

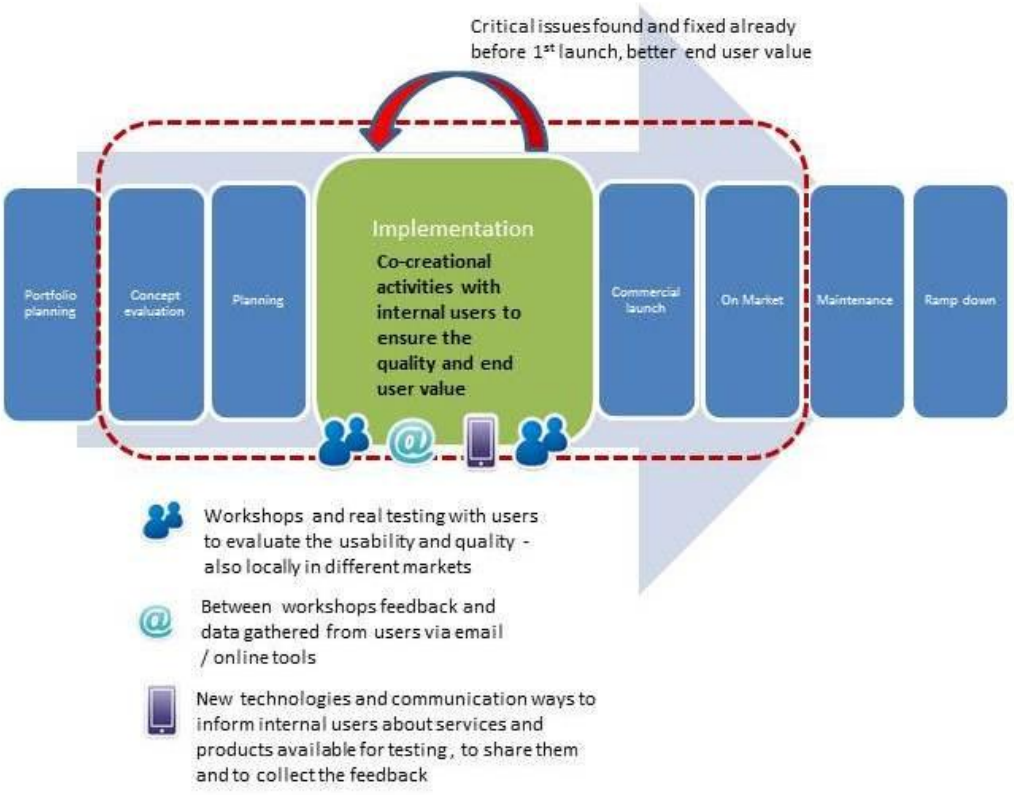


Figure 36 Co-creation in implementation phase

Current ways of utilizing internal users are focusing mainly on testing services and products only before the public launch and used methods are primarily online feedback between users and programs through the internal test site.

The development proposal aims to improve the implementation phase by establishing real co-creation with internal company users. The advantage of using internal users is that they are easy to reach and more cost efficient to use than externals. Therefore company might be able to fasten their development process by getting the inputs from internal users in advance and ensuring that the quality of the final product would be good before the commercial launch. The proposed methods of co-creation for this phase are the following:

Workshops and real testing

Participants for the workshops would be invited based on the focus groups defined in the planning phase. Workshops can be used for different purposes for instance in con-

cept phase to evaluate the idea or innovate new possibilities. During the implementation phase the focus can be either on one element or whole product. The content of the workshops can vary; users will not have any information of the product or service before the workshop and behaviors after receiving the product can be observed in real-time. Users may also receive the product or service in advance and workshop is used for feedback gathering and discussion. It is vital that the participants from the program side are the ones making the decisions and are capable of evaluating the proposed changes.

Workshops can be used as a repetitive method during the implementation phase to check implementation and user experience implemented so far. The user groups can be changed fully or partly to get new viewpoints if needed. Between the workshops users may be contacted online to give feedback or test new features. The possibility to use the product or service between the workshops would be a good incentive for the participants.

Methods like interviews, observation, surveys can be used during the workshops or in addition to them. Currently used data gathering software which gathers the usage data from the service or product based on how the user uses it can be used to support.

Tools and portal improvements

Based on the feedback from the interviews, the current tools such as internal test-site (B-portal) is not user friendly to use and users don't have sufficient visibility whether the feedback has been noticed or not. More co-creational tools were requested which would make the participation easier.

The development proposal for improving the tools is focusing on improving the user-friendliness of the tools, and increasing the visibility to feedback usage in service programs.

- Contacting the users through mobile phones and online in addition to emails:
    - SMS messages used to inform about new products or services available for testing
    - Online updates to offer new services for download and test
    - Feedback channel through mobile phone in addition to current web site

- Visibility to feedback usage in R&D to show the user how his or her feedback has improved the service or product:
    - List of best improvement ideas on the B-portal or the idea of the month could be announced
    - The user is informed how and if the feedback will be utilized
    - An idea bank called “waiting room” for all accepted improvement ideas. This could be placed in the B-portal

- New technology to support and making the participation easier (NFC - Near Field Communication as new technology to download services and transform data)
    - NFC “tags” on stands around the office to download the latest application or services for testing with one tap.
    - Beside the stand a screen with a demonstrative film about the service
    - Leaving the feedback/ test results through the same NFC point

Commercial launch phase

In the launch phase, the product or service is approved for public launch and sales or distribution can start. Before the launch approval is given the maturity and readiness of the product or service needs to be on a required level. In the current model most of the validation is based on the technical maturity and not on the responsiveness to user value. On some level focus group evaluations are used with external users just before the launch in the key markets, but most of the findings or improvements will not be implemented for this version but used as a base for the next ones.

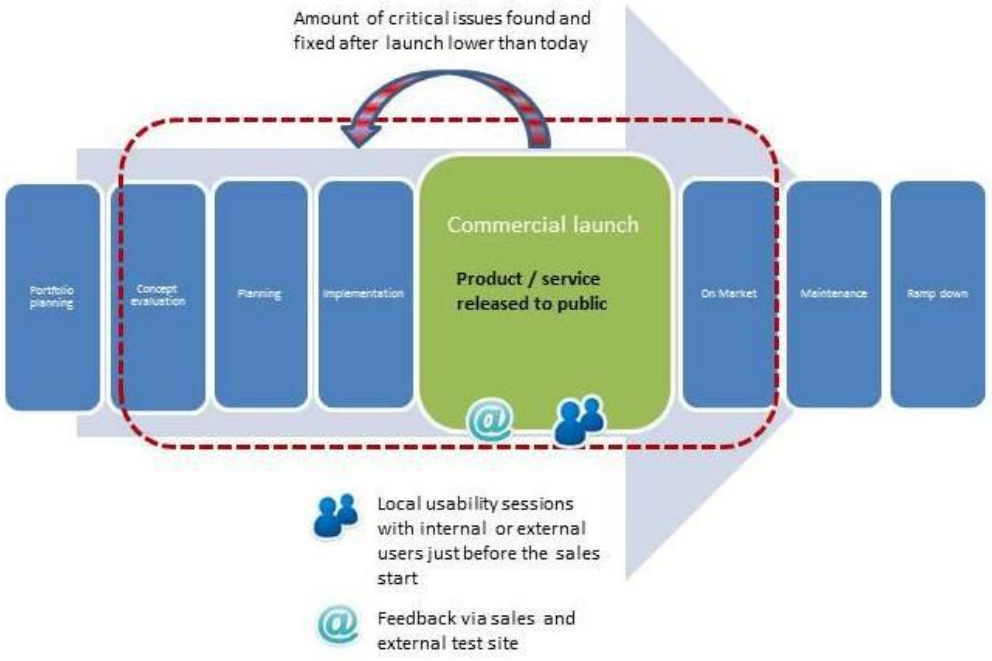


Figure 37 Co-creation in commercial launch phase

If using the proposed way of co-creation already in earlier phases of the process, these findings are probably discovered early enough to be able to implement them to the first version of the product or service. Conducting the maturity tests before the launch only with-in the R&D is perhaps not enough. That will give the viewpoint only from that respective group of experts which are not usually the targeted end-users. They might be too close to the product or service itself to be able to see it from another user's perspective.

On Market phase

On market phase means scaling up commercial roll-out and volume production for the service or product. For the process phases after launch, the case company has high variety of different ways of gathering the user data and feedback from the external users. In "on market" phase the products and services are not secret anymore and the real user base exists to give feedback and improvement ideas for the future development.

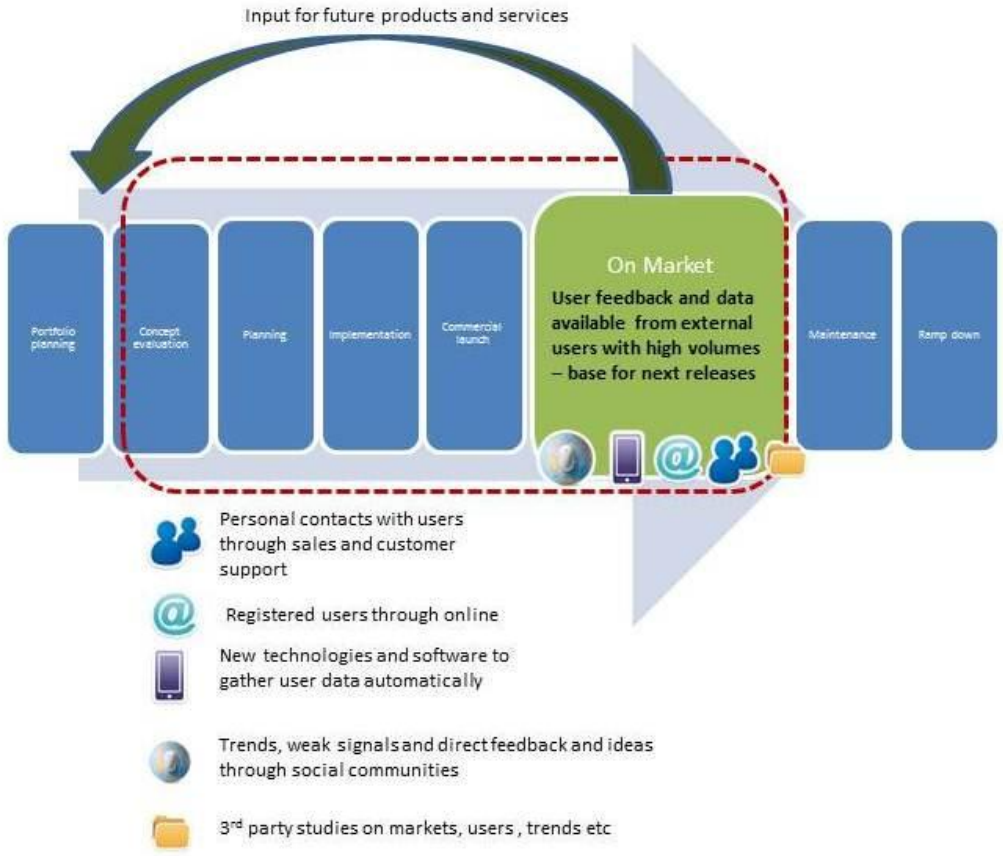


Figure 38 Co-creation in on-market phase

In the case company, many of the methods used at this phase are based on the group of registered users, online surveys and social discussion forums. At this phase the co-creation focus could be moved more from the internal users to externals ones. Nevertheless the problem with using only external users for data gathering at this phase is that the user data from end-users will not start coming in to the company soon enough after the launch. This is one of the reasons supporting the proposal to utilize internal users early enough before the launch.

In the development proposal, the possible ways of improving the co-creation with users at “on market” phase is to use more new methods like social communities or online panels as a base for discussion, finding ideas or weak signals and gathering feedback.

Maintenance and Ramp down phase

During the maintenance phase data is gathered through different channels like customer support and sales. When a product or a service is in the maintenance phase no major changes or improvements are made to it, but rather ensured the functionality. Ramp down is the phase where a product or a service is ramped down based on the business decision. User co-creation in the context of this study is not relevant in these two phases. Of course users are in contact with the company also during these phases, but deeper co-creation is not required.

As presented earlier the new model of involving internal user in the service development process will not work without actions from the management side to support and motivate employees to participate, and to maintain the service culture. Future proposals for these areas are presented in the next chapters.

4.6.2 Management support and commitment

Many actions have been implemented in the case company to meet the challenges of being truly consumer driven company. These actions have been the base for creating a service culture and maintaining it. Still the employees and service programs saw that the company is still too product and R&D oriented and no clear enough change towards service culture had been noticed. Even the strategy, company values and structures have been changed to support the change, more work will be required from the management to boost the service culture and move from old R&D orientation towards more service and customer orientation.

The lack of management commitment was one of the challenges recognized in the current state analysis. Management should motivate employees to enhance the customer-focused mindset as well as act as internal testers and learn about their own solutions. This requires a lot of motivation and inspiring leadership methods from the management of the company. Management has a major role as an example for the rest of the organization and internal marketing and communication should be used more. Based on the findings from the study following proposals were created to strengthen the service culture:

- One should see the connection between the strategy and own work to increases the commitment. Users giving input for the service creation process should be able to see the value of doing it.

- More communication to fortify the service culture is required highlighting the feeling of:
  - ”We know our own solutions, we create them together!”
  - Possibility to influence and bring out new ideas – “Your idea can be the next market hit”.
  - The importance of the feedback – “ Make right things to ensure the exceptional user experience for our customers right from the first touch.”

- Usage of work time to participate:
  - Attending the program shouldn’t be something extra; it should be seen as part of the everyday work and life.
  - Management support and commitment to use work time to participate is required.

- Offering the suitable product to be able to participate – “shoes for shoemaker’s kids”. Currently mostly people only working in R&D have access to the developed products and services (protos), these should be available for all who want to participate or are invited to the focus groups.

4.6.3 Motivating users

Motivation is not required only to engage the internal users to participate co-creation, but in the matter of the case company motivation is perhaps needed to commit even to everyday work. After a long period of changes, some of them also affecting the employees through personnel reductions and organizational changes, the overall motivation and commitment to company future have decreased. For this area management has the most important role as creating the motivators; of which at least ensuring the continuity and building the lost company spirit are the first ones to tackle.

Motivating users to participate co-creation the most relevant motivators for this study based on the theory of motivation and the findings of this study are listed below. What

was noticeable was the realization of the theories in real life. As stated in the theory by Maslow (1990), emotional and value based motivators are seen more effective than direct incentives. From the list of the motivators defined by the company users and service programs and presented in the reflections to main findings most of the motivators will be in place if other proposals presented for co-creation in service development process and for management support are fulfilled:

- Good quality services which create value
- Company culture should embrace collaboration and participation
- Management commitment and support
- Confidence that the feedback matters
- More communication and internal marketing
- More ways to participate
- Tools and processes supporting the co-creation

This indicates that the company employees are willing to participate and give their input for the creation process. This should be enabled and supported by the management, by emphasizing participation, enabling easy ways of feedback creation and by building the connection from one's work to the company goals and strategy. The strengthening force is the company culture which internal marketing and communication should boost as much as possible.

.

5 CONCLUSIONS AND DISCUSSION

The purpose of this study was to describe how the transformation from product focused company towards service orientation has been realized so far in the case company and how co-creation with internal users could improve service development process. The research period for the study lasted over 2 years, which enabled deeper evaluation of the case company. This increased the level of understanding the company business and improved the credibility of the data. The case company had already in the middle of the transformation when this study was started, and it was not completed during the research period. During the research period the case company went through many changes and also the company strategy was redefined and updated during the study.

This created new challenges for the authors in light of re-scoping the study and maintaining the key stakeholders and contacts on the company side to support the study. On the other hand these changes created important data for the study about new possibilities and challenges a company may encounter during the transformation.

The objective for the study was to describe the possible future opportunities and challenges for the company to achieve its strategic targets with the focus on improving the service and product creation process. Concrete proposals for the case company were created based on the findings.

Even the proposals (presented in chapter 4) were created for this specific case company and can be seen as local innovation, the same model of co-creation can most likely be utilized in any other company facing the similar challenges of transforming from product- to service- and customer-oriented company.

To frame the purpose and target of the study the following research questions were defined in the beginning:

RQ1: “How a company with a history of product dominant business logic can transform into service dominant business?”

This question was aiming to help to understand what the main change factors based on the current service research and literature are, and what kind of challenges the company may encounter. A group of change factors was defined based on the literature review and used as a foundation and comparative data to evaluate the case company in its transformation. Through the study it came evident that the transformation from product dominant business logic into service dominant business requires large-scale changes across the organization. This kind of transformation cannot be done without strong leadership and commitment of the whole organization. Based on the case company evaluation, it can be seen that this kind of change will also take time and the company has to be ready to redefine its strategy and operations on the way. Well planned change management has a major role of maintaining the focus and motivation during the transformation. It can be said that the key for a successful transformation are the people, people who have adopted the service culture and have a strong belief in good service.

RQ2: “What is the role of an internal user in the service or product development process and how it can be enhanced?”

With this question the purpose was to define what are the possibilities to improve the service or product development process through co-creation with internal users to support today’s market requirements of customer orientation. It aimed to understand is there a difference or an advantage of using the company employees alongside of external customers to improve the services or products?

The case company evaluated in the study, was on the middle of the transformation from product focused manufacturing towards service focused business. Major changes and actions had been already done to endorse the transformation, but it came evident that the change is not so easy to realize and many of the defined change factors were not yet fulfilled in the case company. The importance of customer focus has been understood but still co-creation with end-users is rarely used. In the challenging business situation the company has to be efficient and deliver fast but at the same time be able to deliver services which are based on the real customer need. The role of internal user had been undervalued and used only to test the services just before the launch. Using employees alongside external customers in co-creation was seen as a great opportunity by the case company stakeholders. It also came evident, that internal users (employees) could actually bring as much value to the development process as external customers, if not even more. In a large, global company the organization itself represents different markets and different user profiles can be found from the employees. Employees can be used already in early phases of the development process, faster and with lower costs than external customers. Also the risk of unwanted information leaks is lower when co-creating with company employees. The proposal for the case company was to utilize its internal users throughout the development process to improve the service experience. The second research question can be concluded; using employees in co-creation creates additional value, is an advantage to the service development process and should be utilized throughout the process.

Summarizing the development proposal

As presented in the previous chapter, the development proposal includes all the main elements needed for the case company to improve its service orientation and customer centricity. For the case company to complete the transformation from product focused company towards services orientation following issues should be taken into consideration. As service culture is acting as a foundation for the service orientation, more emphasis needed to boost the service culture; this is accomplished with strong management support. Internal marketing maintains and promotes the service culture through active communication. The proposed changes to the service development process are concrete opportunities for improving and increasing the co-creation with internal users. When these opportunities are implemented it may have a positive impact on increasing the value for the customer, and competitiveness and profitability for the company.

5.1 Evaluation of the study process

Through the thesis, the authors wanted to have an opportunity to use all the learning from the Master's degree period in real life. The topic of the study is interesting and current as the case company used in the study is in the middle of the major transformation. Throughout the research, period in co-operation with the case company the authors had a great opportunity to build understanding on the global business and the challenges related to the major transformation of business logic.

Literature and other sources of current research in the service science are available quite extensively, and the information is recent because the field of research is rather new. Finding the article of Service research priorities created by Ostrom et al (2010), enabled structuring the theoretical framework for the study. The authors feel that the literature review part is extensive and covers the foundation needed to support the study.

Before starting the data collection for the study, the authors had created a profound understanding about the theoretical framework to guide the interview process. Even the background and foundation for data gathering was easy to plan based on the theoretical framework, the challenges in interview phase were first of all, to find the right stakeholders from the service programs and internal users, and secondly to receive a com-

mitment from these stakeholders to participate the interviews. The global environment of the company provided another challenge as some of the interviewees were not located in Finland. In these cases instead of using a face-to-face interview teleconference and email interviews were used.

Data collection phase in overall was time consuming as a lot of the company information is scattered throughout the organization. The company has several databases were data used in service development is stored; hence finding the relevant data was challenging and required solid planning. The positive factor for the data collection phase was the availability of some previous studies related to the topic. As these studies are all company confidential, they could not be used directly in the study.

As a positive effect, the long research period gave the authors deeper understanding of the current state in the company. On the other hand during the long research period the company changed its strategy affecting the content of the study. Also due to organizational changes some of the key contacts either left the company or moved to new positions. In overall the data gathering phase required detailed planning and proactiveness throughout the process to be able to maintain the focus of the study and schedules. The authors feel that Interviews and observation in the company gave the most valuable information and experience for both the study and the authors themselves in a matter of personal development and learning process.

The methods used for the data analysis were chosen based on the suggestions from the research literature. The methods used were diverse and enabled thorough and reliable analysis. The model of mixed methods was chosen to enable as wide and reliable data sampling as possible. Usage of quantitative methods supported the qualitative findings and made the analysis part easier. Creating the final proposal and conclusions was evident for the authors based on the analysis phase.

The outcome of this study is the development proposal for improving the service creation process through co-creation with internal users. With a profound understanding of the theoretical framework combined with the comprehensive data collection and analysis, the authors felt that it was rather evident what should be the new way of co-creating within the company. The development proposal offers concrete opportunities for the case company to increase the value for the customer and the competitiveness and profitability of the company.

5.2 Suggestions for further studies

As the field of service sciences is a rather new area of research, it would be valuable for future studies to investigate more the realization of the co-creation in real life. As stated earlier in the study, there is not much data available to what extend companies use co-creation and how integral part it is of the strategy or business.

Another interesting aspect for the future studies might be the usage of rapidly growing social media as a platform for co-creation. Many companies have entered the social media to gather user feedback, but information about how deeply it has been utilized or what opportunities it can offer for these companies is not publicly available yet.

Open innovation and crowd sourcing are few of the new methods introduced by service design. The positive effect of these methods is the openness of the development process and receiving ideas directly from customers to the development process. With these methods, the company has to be careful of maintaining the security and effectiveness of the development process. The interesting area to investigate would be to understand how deeply a company can really involve the customers into its processes without risking the business. Where should the limit of co-creation and involving users be set?

LIST OF FIGURES, GRAPHS AND TABLES

LIST OF APPENDIX

Appendix 1 – Interviewees

Interviewee number	Interviewee Group	Company unit
1	Service Program	Services
2	Service Program	Services
3	Service Program	Products
4	Service Program	Products
5	Service Program	Services
6	Service Program	Services
7	Service Program	Services
8	Service Program	Services
9	Service Program	Services
10	Process owner	Corporate functions
11	Process owner	Corporate functions
12	Process owner	Corporate functions
13	Process owner	Corporate functions
14	Process owner	Corporate functions
15	Process owner	Corporate functions
16	Process owner	Corporate functions
17	End-user	Services
18	End-user	Corporate functions
19	End-user	Products
20	End-user	Services
21	End-user	Services
22	End-user	Services
23	End-user	Products
24	End-user	Marketing and Sales
25	End-user	Products
26	End-user	Marketing and Sales
27	End-user	Marketing and Sales
28	End-user	Marketing and Sales
29	End-user	Marketing and Sales
30	End-user	Products
31	End-user	Products
32	End-user	Corporate functions
33	End-user	Marketing and Sales
34	End-user	Marketing and Sales
35	End-user	Products
36	End-user	Marketing and Sales
37	End-user	Marketing and Sales
38	End-user	Marketing and Sales
39	End-user	Marketing and Sales
40	End-user	Products

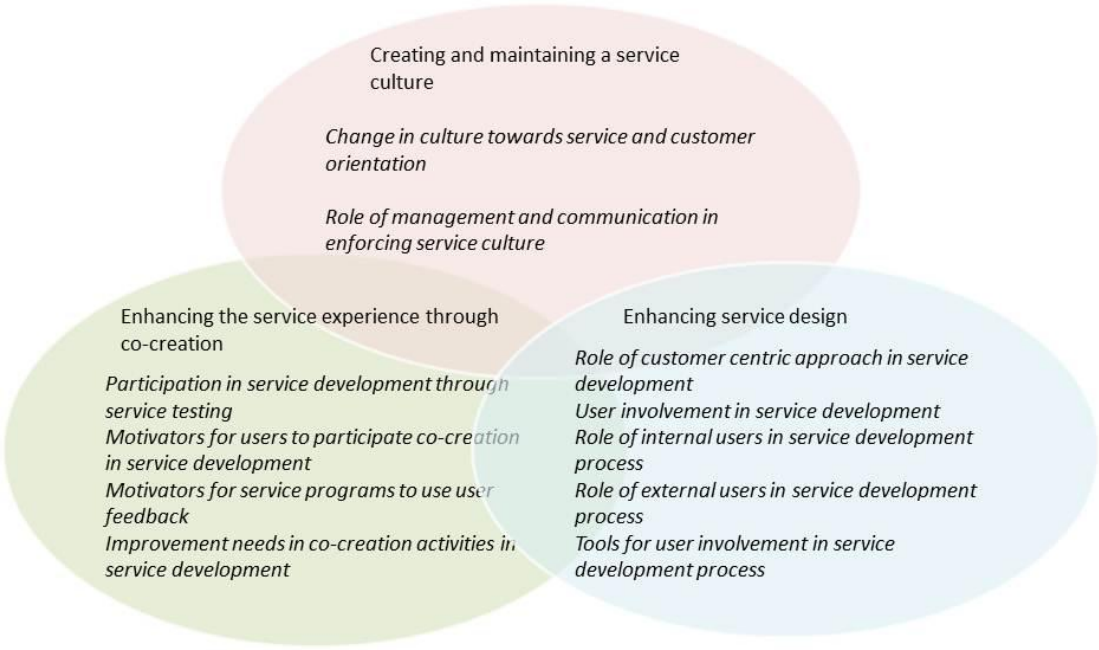
Appendix 2 – Discussion topics of the interviews

General:
- Introduction to the study
- Brief overview to service culture, user involvement and co-creation

Creating and maintaining a service culture:
- Change in culture towards service and customer orientation
- Role of management and communication in enforcing service culture

Enhancing service design:
- Role of customer centric approach in service development
- User involvement in service development
- Role of internal users in service development process
- Role of external users in service development process
- Tools for user involvement in service development process

Improving the service experience through co-creation:
- Participation in service development through service testing
- Motivators for users to participate co-creation in service development
- Motivators for service programs to use user feedback
- Improvement needs of co-creation activities in service development



REFERENCES

Literature and articles:

Adair, J. 2009. Effective Motivation - How to get the best results from everyone. Pan Books Ltd. Oxford, United Kingdom.

Altrichter H., Feldman, A., Posch, P. Somekh, B. 2008. Teachers investigate their work; An introduction to action research across the professions. Routledge. 2nd edition.

Edvardsson, B., Gustafsson, A., Kristensson, P., Magnusson, P., Matthing, J. 2006. Involving Customers in New Service Development. Imperial College Press. London – Great Britain.

Evans, M., Jamal, A., Foxall, G. Consumer Behaviour. 2006. John Wiley & Sons Ltd. United Kingdom

Case J., Donahue K., Wardell, C. 2005. Motivating People for Improved Performance. 2005. Harvard Business School Publishing. United States of America.

Chesbrough, H. 2006. Open Innovation – The New Imperative for Creating and Profiting from Technology. Harvard Business School Publishing. United States of America.

Deeprose, D. 2003. Smart things to know about motivation. Capstone Publishing Ltd. United Kingdom

Eskola, J., Suoranta, J. 2005. Johdatus Laadulliseen tutkimukseen. Gummerus. 7th edition. Jyväskylä.

Forsyth, P. How to Motivate People. 2007. Kogan Page. United Kingdom.

Ghauri, P., Gronhaug, K. 2010. Research Methods in Business Studies. 4th edition. Pearson Education Limited. England.

Gillham, B. 2005. Research Interviewing – The range of techniques. Open University Press. Berkshire, England.

Grönroos, C. 2000. Service Management and Marketing - a customer relationship management approach. Chichester. John Wiley & Sons Ltd. England.

Grönroos, C. 2007. Service Management and Marketing, Customer Management in Service Competition. John Wiley & Sons Ltd. England.

Gummesson, E. 2000. Qualitative Methods in Management Research. Thousand Oaks: Sage Publications Inc.

Gummesson, E. 2007. Extending the service-dominant logic: from customer centricity to balanced centricity. Journal of the Academy of Marketing Science. Volume 36, Number 1, 15-17.

Heskett, J., Sasser, E., Schlesinger, L. 2003. The value profit chain: treat employees like customers and customers like employees. Free Press. New York.

Hipp, C., Herstatt, C. 2006. Service Innovation, user involvement and intellectual property management. (Edited by) Edvardsson, B., Gustafsson, A., Kristensson, P., Magnusson, P., Matthing, J. Involving Customers in New Service Development. 2006. Imperial College Press. London – Great Britain. 269 -280.

Hirsjärvi, S., Hurme, H. 2001. Tutkimushaastattelu – Teemahastattelun teoria ja käytäntö. Yliopistopaino. Helsinki, Finland.

Hollins, B., Shinkins, S. 2006. Managing Service Operations. Sage Publications Ltd. Thousand Oaks, California.

Hyysalo, S. 2009. Käyttäjä Tuotekehityksessä – Tieto, tutkimus, menetelmät. Otava Book Printing Ltd. Finland.

Hämäläinen, K., Lammi, M. 2010. Service Design as a tool for innovation leadership. (Edited by) Miettinen, S. Koivisto, M. 2010. Designing Services with Innovatice Methods. Otava Book Printing Ltd. Finland. 180 – 195.

Jauhari, V, Dutta, K. 2009. Services: marketing, operations, and management. Oxford university press.

Johnston, R., Clark, G. 2008. Service Operations Management – improving service delivery. 3rd edition. Pearson Education. England.

Koskinen, I., Alasuutari, P., Pettonen, T. 2005. Laadulliset menetelmät kauppatieteissä. Gummerus. Jyväskylä.

Kotler, P., Keller, K., Brady, M.,Goodman, M., Hansen,T. 2009. Marketing Management. Harlow, Prestige Hall.

Lockwood, T. 2010. Design Thinking, Integrating Innovation, Customer Experience and Brand Value. Design Management Institute. Alltworth Press. NYC - United States.

Lovelock, C., Wirtz, J. 2007. Services marketing: people, technology, strategy. Pearson Education Inc. New Jersey.

Mager, B. 2009. Service design as emerging field. (Edited by) Miettinen, S. Koivisto, M. 2010. Designing Services with Innovatice Methods. Otava Book Printing Ltd. Finland . 28-42

Michel, S., Vargo, S., Lush, R. 2007. Reconfiguration of the conceptual landscape: a tribute to the service dominant logic of Richard Normann. Journal of the Academy of Marketing Sciences. Volume 36, Number 1: 152-155.

Miettinen, S., Koivisto, M. 2010. Designing Services with Innovative Methods. Otava Book Printing Ltd. Finland.

Mohr, L., Bitner, M. 1995. The Role of Employee Effort in Satisfaction with Service Transactions. Journal of Business Research. Volume 32, 239 - 252 .

O'Donoghue, T., Punch K. 2003. Qualitative Educational Research in Action: Doing and Reflecting. Routledge.

Ojasalo, K., Ojasalo, J. 2010. Developing Service Design Education. (Edited by) Miettinen, S. Koivisto, M. 2010. Designing Services with Innovatice Methods. Otava Book Printing Ltd. Finland. 98-116.

Palmer, A. 2005. Principles of Service Marketing. Mc Craw Hill Education.The 4th edition. Belkshire. UK.

Paton, R., McCalman, J. 2008. Change management – A Guide to Effective Implementation. 3rd edition. SAGE Publications India Ltd.

Prahalad, C.K., Ramaswamy, V. 2004. The Future of Competition: Co-Creating Unique Value With Customers. Harvard Business School Publishing. United States of America.

Saunders, M., Lewis, P., Thornhill, A. 2003. Research Methods for Business Students. 3rd edition. Pearson Education Limited. England.

Vargo, S., Lush, R. 2004. Evolving to a new dominant logic for marketing. Journal of Marketing Vol. 68. 1-17.

Vargo, S., Lush, R. 2006. The service-dominant logic of marketing dialogue, debate and directions. M.E.Sharpe Inc.New York, United States of America.

Vargo, S., Lush, R. 2008, On value and value co-creation: A service systems and service logic perspective, European Managent Journal 26, 145-152

Yang, K., El-Haik, B. 2009. Design for Six Sigma – A Roadmap for product development. The McGraw-Hill USA Companies Inc.

Yin, R. 2009. Case Study Research; Design and Methods. Sage Publications. 4th Edition. Thosand Oaks, CA.

Zeithaml, V., Bitner, M., Gremler, D. 2009. Services marketing: integrating customer focus across the firm. McGraw-Hill. New York

Internet-pages and electronic source of information:

Deloitte Research. 2006. The Service Revolution in Global Manufacturing Industries. Study report. http://www.apec.org.au/docs/2011-11_training/deloitte2006.pdf. Retrieved March 2012.

Flyvberg, B. 2006. Five Misunderstandings About Case-Study Research. Qualitative Inquiry Volume 12 Number 2 April 2006. pages 219-245. Sage Publications. http://vbn.aau.dk/files/3790172/BF_Qualitative_Inquiry_2006_vol_12_no_2_April_pp_219-245.pdf

Harting, D. 2008. Employees - Your Most Valuable Asset. http://www.articlesbase.com/leadership-articles/employees-are-your-most-valuable-asset-328247.html . Retrieved January 2011.

Kaplan-Williams, S. 2009. Employees- a Company's Greatest Asset Survival of a company depends upon its employees. http://susan-kaplan-williams.suite101.com/employees-a-companys-greatest-asset-a125101. Retrieved January 2011.

Khan, R. 2011. Developing the theoretical and conceptual framework. http://journclasses.pbworks.com/f/theoretical+framework.ppt Retrieved December 2011.

Moritz Stefan. 2005. Service Design – practical access to an evolving field. http://stefan-Moritz.com/welcome/Service_Design_files/Practical%20Access%20to%20Service%20Design.pdf. Retrieved January 2011.

Ostrom, A., Bitner, M., Brown, S., Burkhard, K., Goul, M., Smith-Daniels, V., Demirkan, H., Rabinovich, E. 2010. Moving Forward and Making a Difference: Research Priorities for the Science of Service. Journal of Service Research Online First, published on January 18th. http://scholar.google.fi/scholar_url?hl=fi&q=https://noppa.aalto.fi/noppa/kurssi/35e00200/materiaali/35E00200_ostrom_et_al_.pdf&sa=X&scisig=AAGBfm1gZtdHNl7TUIYn304hf6ykPzVLgQ&oi=scholarr&ei=eZaKT9-PJcWX8gOZkuS_CQ&ved=0CBkQgAMoADAA

Parasuram, A., Zeithaml, V., Berry, L.1985. A Conceptual model of Service Quality and its implications to future research. Journal of Marketing. Vol 49 . 41 -50. http://areas.kenan-flagler.unc.edu/Marketing/FacultyStaff/zeithaml/Selected%20Publications/A%20Conceptual%20Model%20of%20Service%20Quality%20and%20Its%20Implications%20for%20Future%20Research.pdf . Retrieved April 2012.

Payne, A., Storbacka, K., Frow, P. 2007. Managing the co-creation of value. Conceptual/Theoretical paper. Academy of Marketing Science. http://www.huizenga.nova.edu/5017/ReadingList/Payneetal-2008-cocreatingvalue.pdf Retrieved December 2010.

Pryce, V. 2007. Innovation in Services. DTI Occasional paper No.9 http://www.berr.gov.uk/files/file39965.pdf

Skinner, M. 2002. Ways to categorize research and methodology. http://www.bfi.org.uk/education/teaching/researchguide/pdf/bfi-edu-resources_research-the-essential-guide.pdf

Vuorela, S. 2005. Haastattelumenetelmät.Tampereen Yliopisto, Tietojenkäsittelyn laitos B-2005-1.http://www.cs.uta.fi/usabsem/luvut/3-Vuorela.pdf Retrieved December 2010.

Shuttleworth, M. 2008. Quantitative Research Design. Retrieved 30 Jan. 2012 from Experiment Resources: http://www.experiment-resources.com/quantitative-research-design.html

Åkesson, M., Skålén, P., Edvadrsson, B. 2008. E-goverment and service orientation: gaps between theory and practice. International Journal of Public Sector Management. Vol. 21 Iss: 1pp 74-92. Downloaded on 5.5.2012. http://dx.doi.org/10.1108/09513550810846122

Unpublished source material:

Brown, J. 2010. Social Networking in Product Innovation and Product Development, and Engineering. Seminar presentation in Crowdsourcing in service development – seminar, TEKES . Helsinki Finland, June the 2nd 2010.

Grönroos, C. 2011. Value Co-Creation in Service Logic – A Critical Analysis. Hanken School of Economics Finland. Article to be published in the Marketing Theory March 11th 2011.

Hertog, den P. 2010. Seminar presentation in BIT - Concluding seminar of ISO project - Innovation integrated in service operations. November 18th 2010, Espoo, Finland.

Holopainen, M., Helminen, P. 2010. Seminar presentation in BIT – Concluding seminar of ISO project – Asiakaskeskeisyys ja tulevaisuusnäkökulma innovaatioprosessissa. November 18th 2010. Espoo, Finland

Valminen, K. 2010. Seminar presentation in BIT – Concluding seminar of ISO project – Palveluiden tuotteistaminen, keino kehittä palveluita. November 18th 2010. Espoo, Finland