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**VALUE CO-CREATION IN SOFTWARE AS A SERVICE INDUSTRY:  
REALIZING CUSTOMER VALUE EXPECTATIONS**

Master's Thesis, May 2018

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**ABSTRACT**

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The purpose of this Master's Thesis was to find out how service providers can co-create value with their current customers in order to realize customer value expectations. Phenomenon is examined in the context of software as a service industry as a case study. The goal was to find out the main joint activities needed in realizing customer value expectations. The study followed an abductive approach and theoretical part focused in customer value expectations, co-creation and realization. Empirical part was conducted as qualitative research and semi-structured theme interviews were used as the main data collection method.

Findings identified the main customer expectations and their types. The most critical factors for value realization were recognized, which revealed the main eight activities needed in value co-creation. These results were used in providing a framework for customer expectation realization as a continuous two-level value co-creation process. This framework can be used as a source when creating processes for value co-creation in software as a service industry. The results revealed two new theoretical aspects for value co-creation. First of all, it should be conducted as a continuous two-level process by taking both management and user level into account. In addition, where previous studies have focused on value co-creation as a onetime process and left value expectations outside, this study proposes that customer value expectations are controlling the process of value co-creation overtime and changing the nature of it. Therefore, depending on customers' expectations, nature of value co-creation should be either affirming or assertive.

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Pro-Gradu tutkielman tarkoitus oli selvittää kuinka palveluntarjoajat voivat auttaa asiakkaitaan realisoimaan asiakas arvo-olettamiset arvon yhteisluontiprosessin kautta. Tutkimus toteutettiin tapaustutkimuksena, jossa arvon yhteisluonti -ilmiötä tutkittiin pilvipalveluiden kontekstissa. Tavoitteena oli tunnistaa tärkeimmät aktiviteetit arvon yhteisluontiprosessille asiakkaiden arvo-olettamien realisoimiseksi. Tutkimuksen lähestymistapana käytettiin abduktiivista menetelmää ja teoreettinen viitekehys koostui asiakkaiden arvo-olettamien, arvonyhteisluonnin ja arvon realisoinnin teorioista. Empiirinen osuus toteutettiin laadullisena tutkimuksena, jossa hyödynnettiin puolistrukturoituja teemahaastatteluja aineistonkeruumenetelmänä.

Tutkimustulokset osoittivat asiakkaiden yleisimmät arvo-olettamiset sekä niiden päätyypit. Kaikista kriittisimmät tekijät asiakasarvon realisoimiseksi tunnistettiin, joiden perusteella kehitettiin yhdeksän tärkeintä aktiviteettia arvonyhteisluontiprosessille. Tutkimustuloksiin sekä aiempaan teoriaan perustuen rakennettiin uusi viitekehys arvon yhteisluontiprosessille, joka esittää asiakkaiden arvo-olettamien realisoinnin jatkuvana kaksitasoisena prosessina. Tutkimus toi esille kaksi uutta teoreettista näkökulmaa. Asiakasarvon yhteisluontiprosessi tulisi toteuttaa kaksitasoisesti, jolloin tulee huomioida sekä käyttäjä- että johtotaso. Aikaisemmat tutkimukset ovat osoittaneet arvon yhteisluonnin ja arvo-olettamiset erillisinä prosesseina. Tämä tutkimus puolestaan osoittaa, että asiakkaan arvo-olettamiset hallitsevat arvonyhteisluontiprosessia vaikuttamalla sen luonteeseen. Täten, asiakasarvon yhteisluontiprosessi on joko vakuuttavaa tai myötäilevää, asiakkaan arvo-olettamista riippuen.

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What a great journey. I still remember that perhaps the biggest challenge was to get started with this work, but now I realize how wonderful feeling it was to let my inner researcher free. Despite the fact that thesis writing has been one of the most time consuming project, I think it has also been the most rewarding one. This journey has taught me patience and determination. At the same time, I have surprised myself. To be honest, I learned to enjoy the world of research more and more every day with my project.

Since, the school is almost over, there are definitely some things I will miss after graduation. Most of all, I will miss my friends, professors and other people from the university who have made my academic journey incredible. As well, I know I will miss the innovational education and university atmosphere in Lappeenranta where I spent a lot time during my studies. Still, everything ends at some point and a lot of memories remain. I also feel that now I'm readier for the upcoming opportunities and challenges that come in front of me.

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Case company and its representatives deserve a mention as well. I deeply thank the company and its representative for the opportunity to use the customer data for this study. Hopefully, the findings help in future customer work.

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Now, it is time to turn the next chapter.

*Roosa-Maria*

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## 1. INTRODUCTION

This chapter will serve as an introduction to the thesis. First, the background of the study will be explained as well as the most important literature and findings from this field. Secondly, the main objectives and questions with theoretical framework are presented based on the research gap. Introduction also includes the most important key definitions. Finally, delimitations and the structure of the thesis is presented.

### 1.1 Background of the study

Companies need to provide value for their customers in order to do profitable and long lasting business. Today, customer value is seen as a result of co-creation in a mutually beneficial and reciprocal relationship between the customer and the service provider. (Hewing 2013, 1) Therefore, service providers cannot only autonomously provide their offering for customers – they are meant to co-create value for them (Prahalad & Ramaswamy 2004, 6). Customer value creation is no longer one-way process where the firm gives value propositions: value creation should be seen as customer's value creation of value-in-use (Grönroos & Voima 2013, 7; Vargo & Lusch 2004, 6), where customers and providers are seen as co-creators of value while interacting with each other.

Value co-creation has been more emphasized during past decades and previous studies have been widely examining value co-creation (e.g. Grönroos & Voima 2013; Vargo & Lusch 2004; Möller 2006). It has been found out that in the service business, customer value cannot be created without the value co-creation: customer value can only occur after interactive process and when customer value has been realized through value-in-use (Grönroos 2008, 298; Vargo & Lusch 2004, 6). Still, most of the studies regarding value co-creation are done by theoretical level (e.g. Saarijärvi, Kannan & Kuusela 2013; Vargo & Lusch 2004; Möller 2006) and the practical understanding about customers' engagement in value realization through co-creation process is limited (e.g. Woodruff and Flint 2006, 83-84). As well with this, previous studies about value co-creation have focused on more general level contexts and more industry specific knowledge is needed in further studies (e.g. Payne, Storbacka & Frow 2008; Vargo & Lusch 2004).

Value co-creation is a process of customer value creation, which actively involves both the service provider and the customer when creating customer value (Ng & Smith 2015, 225;

Grönroos & Voima 2013, 1). In this process, it is important to consider what kind of value is created, how the value is created and by whom (Grönroos & Voima 2013, 2). Therefore, customer value cannot occur before customer has used and experienced providers solutions (Payne et al. 2007, 84). In addition, the goal of value co-creation is to provide customer value-in-use through interactions in order to help customer to realize the customer value (Grönroos & Voima 2013, 7; Vargo & Lusch 2004, 6), which can only happen if the service provider understands its customers' needs and value creation activities (Grönroos & Voima 2013, 4; Johnson & Selnes 2004, 2).

Importance of value co-creation is growing, because there are many companies who are not able to ensure that their customers can gain value from provided offerings (Hewing 2013, 1). In Software as a Service industry, interaction with customers is widely emphasized, but value co-creation is not examined in this field. Nature of the software products is complex, and because of this, the core product in software industry is not likely to fulfil all the needs of the end-user without active interaction with the customer (*e.g. consulting, implementation, system integrations and sales support*). Especially, with the most difficult software, companies have to add more effort in order to make sure their product is configured to customers' needs (Äijö, Kuivalainen, Saarenketo, Lindqvist & Hanninen 2005, 3; Aarikka-Stenroos & Jaakkola 2012,15;20).

## **1.2 Literature review**

Value co-creation has been widely discussed and studied concept (*e.g. Prahalad & Ramaswamy 2004; Vargo & Lusch 2004; Grönroos 2008*) after service and customer orientation gain ground in business (Saarijärvi et al. 2013, 15). Companies started to add more focus into customer relationships and to the process of transforming their capabilities and resources into customer value (Vargo & Lusch 2004, 1; Möller 2006, 913; Grönroos & Voima 2013, 8), which has shifted the value creation towards interactive process between the customer and the firm (Grönroos & Voima 2013, 8).

Co-creation was first introduced in 2004 by Prahalad and Ramaswamy. Scholars saw the concept as a way of unlocking new value sources of competitive advantage for the firm (Prahalad & Ramaswamy 2004, 5-7). Whereas Vargo and Lusch (2004, 6) and Grönroos (2006, 324) started to study co-creation from customer centric perspective: they saw value creation as a process to offer greater value for the customer. Both Vargo and Lusch (2004, 6) and Grönroos (2006, 324) demonstrated that in the service business, the customer value

is defined by the customer itself, but co-created together with the firm (Vargo & Lusch 2004, 6; Grönroos 2006, 324).

Different researchers have studied value co-creation as a process and brought up the importance of value realization through value-in-use. Scholars have found out that value-in-use is a necessary part of value co-creation (Grönroos & Voima 2013, 7; Vargo & Lusch 2004, 6; Buttle & Maklan 2015, 157; Aarikka-Stenroos 2012, 24), because customer value only occurs through and during the usage of bought service (Buttle & Maklan 2015, 157; Grönroos & Voima 2013, 7).

After Vargo and Lusch (2004) and Grönroos (2008) did their findings, value co-creation has been studied from many different perspectives (e.g. Aarikka-Stenroos & Jaakkola 2012; Mustak, Jaakkola & Halinen 2013). Nevertheless, it is evident that many scholars have examined value co-creation by perspective of trying to understand the roles of the firm and customer on a theoretical level. Grönroos and Voima (2013) and Aarikka-Stenroos and Jaakkola (2012) focused on value co-creation as a process, where customer and seller firm have different roles when creating customer value. Likewise, Möller (2006, 923) and Payne, Storbacka and Frow (2007, 83) highlighted the importance of understanding the roles and process through which customer appropriate value: companies can manage value co-creation and provide value for customers only if understanding these roles and processes.

When looking at the study methods in value co-creation research, many scholars have conducted theoretical literature reviews about value co-creation by examining the previous literature (e.g. Grönroos & Voima 2013; Möller 2006; Saarijärvi et al. 2013; Mustak et al. 2013). Still, there are a few scholars who have done either a field study or qualitative interviews to some interest groups. For example, Payne, Storbacka and Frow (2007) did a field based research about managing the value co-creation where they conducted workshops with the managers of leading global organizations. Still, their interviewees were suppliers instead of the customers, so the study lacked out the customer perspective.

Even though previous researchers have studied the roles of customer and the firm in value co-creation process, Woodruff and Flint (2006, 83-84) state that relatively little is known about how customers practically engage in the value co-creation. Möller (2006, 923), as well with Woodruff and Flint (2006), sees that there should be more knowledge regarding value co-creation processes: especially, solution providers of complex offerings should have a better understanding about the process and competences through which they can

offer value for their business customers. Furthermore, researches about how companies can manage value based portfolio effectively among current customers by value co-creation is still missing.

None of the previous researchers has considered the influence of customer value expectations for value co-creation. The focus has been on the overall process of value co-creation in helping customers to achieve as much value as possible (e.g. Aarikka-Stenroos & Jaakkola 2012; Grönroos & Voima 2013), but not in *what* value is realized or in *what level*. Yet, there are previous studies regarding service quality and value creation for customers, which emphasize customer value expectations and the gap that might occur between expected and perceived service (e.g. Zeithaml, Parasuraman & Berry 1990, 37; Hsieh & Yuan 2010, 1129; Oh 1999, 72; Lee, H., Lee, Y. & Yoo 2000, 217;227). According to these studies, customers evaluate the service based on comparison between their expectations and their perception of the service. The closer the expectations are to the perceived service, the more customer experiences value. In addition, because the goal for value co-creation is to help customers experience as much value as possible (e.g. Grönroos & Voima 2013) - customer expectations should be closely studied next to value co-creation.

Information and technology as well as knowledge intensive business industries have been studied by different scholars (e.g. Äijö, Kuivalainen, Saarenketo, Lindqvist & Hanninen 2005, 3; Aarikka-Stenroos & Jaakkola 2012,15). Still, only Aarikka-Stenroos and Jaakkola (2012) have examined value co-creation in this field, whereas other studies have focused on customer value or customer participation, but not value co-creation itself (e.g. Mustak et al. 2012). Studies have found out that many companies in this field do not have clear understanding how the value-in-use is created for customers (Barus et al. 2010; Aarikka-Stenroos & Jaakkola 2012, 24; Äijö & et al. 2005, 3), and since the value-in-use is the end result of value co-creation (Grönroos 2006, 328), it shows an evident research gap in this field.

Payne, Storbacka and Frow (2008, 94) have mentioned that the process of value co-creation is different depending on the industry. However, the value co-creation has not been studied in the context of Software as a Service business, even though some studies have revealed the challenge of realizing customer value in this industry (e.g. Barus et al. 2010). Most of the studies have been focused on the service business overall (e.g. Vargo & Lusch 2004; Grönroos & Voima 2013) or in the business-to-consumer market (e.g. Payne, Storbacka & Frow 2008).

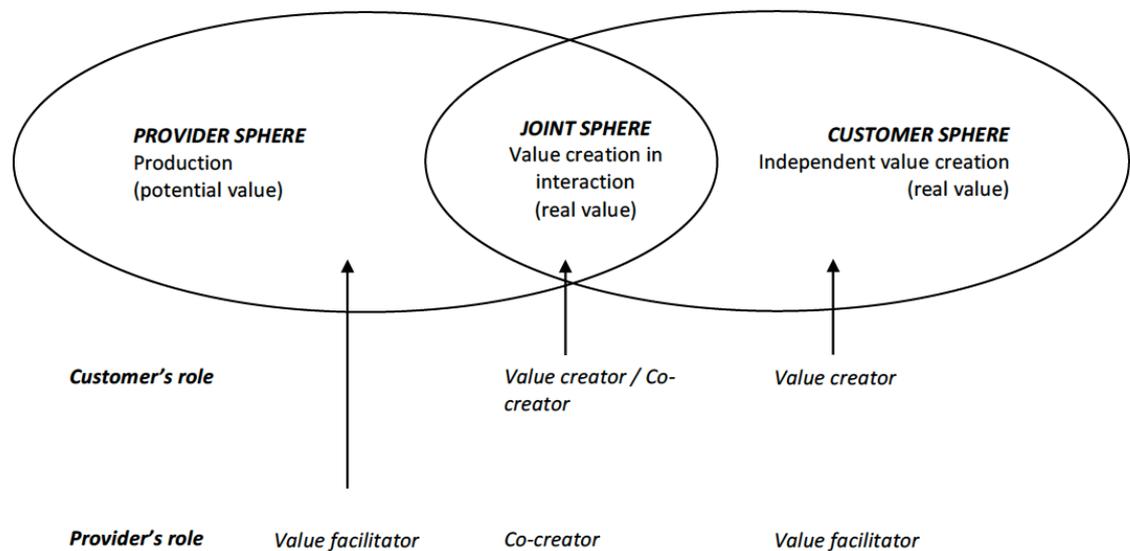
Customer value creation has been studied for example alongside with customer retention methods and churn minimization techniques. Yet, there is no value co-creation model for software as a service industry. Previous studies indicate an emerging need for research on this field, since creating customer value for software providers' customers naturally has a big role for the business. (e.g. Verhoef 2003; Ahn, Han & Lee 2006). In addition, customer participation in value co-creation in software as a service as well as business-to-business sector needs more research because it has been largely unexplored (e.g. Mustak et al. 2012, 352).

### 1.3 Objectives and research questions

This study has its main focus in realizing customer value expectations through value co-creation process, because the importance of this phenomena has been growing in contemporary customer value creation. Based on the literature review, there is still a lot in this field which has remained unexplored. Especially, when it comes to realizing customer value through value co-creation for current customers in software as a service industry and taking customer expectations into account in this process.

Grönroos and Voima (2013, 7-9) have suggested different spheres for customer value co-creation, which are provider-, joint- and customer sphere (Figure 1). These spheres are the basis of value co-creation process and both the customer and the service provider have different roles in these spheres. In customer sphere, customer has the role of *value creator* because the final value is always realized in the customer's side. Still, service provider works as a *value facilitator* or *value co-creator* in different spheres in order to help the customer realize the value from providers offering.

This study will have its main focus in customer value creation in joint sphere (Figure 1), where the service provider and customer interact to create as much value for customer as possible. Yet, in order to get deeper understanding about how the firm can help its customers in value realization, understanding customers independent value creation process through which they appropriate value (*customer sphere*) is considered as well (Möller 2006, 923; Payne et al. 2007; 83). This customer sphere aspect has been left out from previous studies about value co-creation in value realization (e.g. Aarikka-Stenroos & Jaakkola 2012).



**Figure 1. Value creation spheres (Grönroos & Voima 2013, 9)**

Purpose of this thesis is to find out that how a service provider can ensure its current customers' value realization through value co-creation process in software as a service industry. The main research question is as follows:

*How can a service provider co-create value with its current customers in order to ensure customer value realization?*

Three sub-questions were used to divide this problem into smaller pieces in order to get deeper understanding about the problem. As the main purpose of the co-creation is to ensure customer value realization (e.g. Grönroos & Voima 2013) through value-in-use, it is important to consider what value should be realized for the customers, before we can figure out how to realize the value (Johnson & Selnes 2004, 2). As Johnson and Selnes (2004, 2) describe, the supplier needs to know the expectations of their customers in order to organize offerings, resources and activities to create the most value for its customers. Furthermore, first sub-question has its focus in customer value expectations, because it is important to consider which value is actually created before it can be created (e.g. Grönroos & Voima 2013, 2):

*SQ1: What are the customer value expectations of the software providers' current customers?*

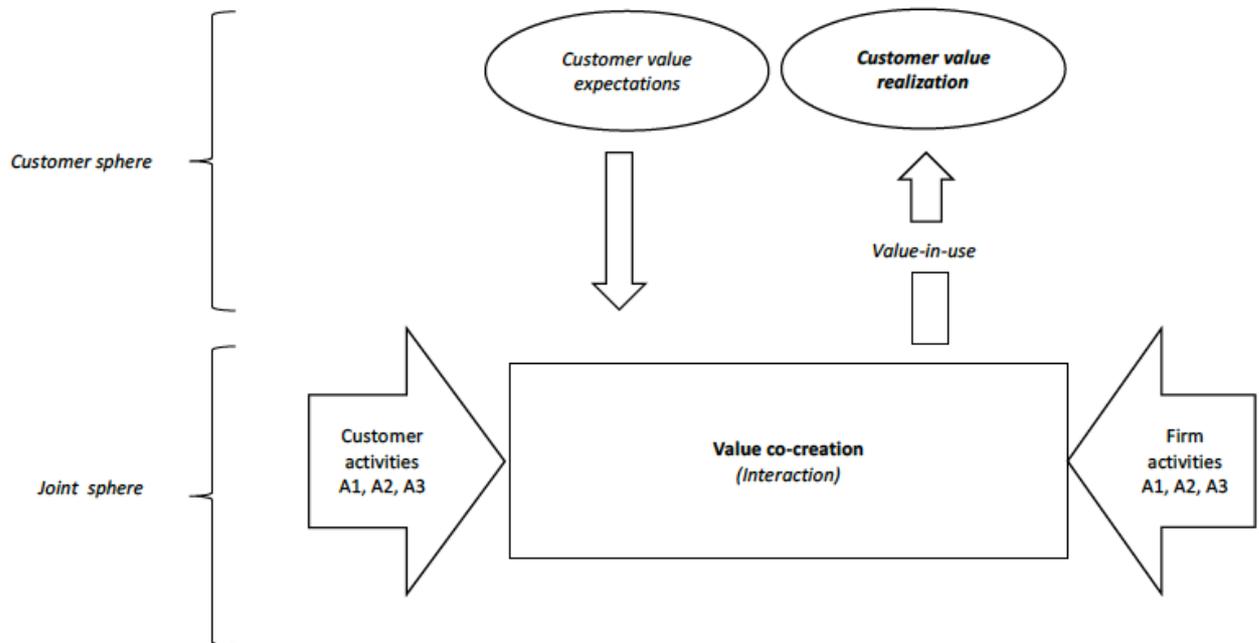
Second sub-question emphasizes the way these customer expectations can be realized through value co-creation. Previous scholars (e.g. Aarikka-Stenroos and Jaakkola 2012; Grönroos and Voima 2013; Tuli et al. 2007) suggested that there are different value co-creation activities, which create the base for the interaction in the joint sphere. In other words, these scholars discuss that value realization cannot occur without certain co-creation activities. In addition, because this research is aiming to understand the most crucial activities needed in co-creation process in order to realize customer value expectations - the second sub question goes as following:

*SQ2. What activities are needed from both customer and the firm in order to realize these customer value expectations through value co-creation?*

Managerial implication of the study is to ensure that software companies will know how to create value for their current customers. This study will help software providers in understanding what is needed from both the service provider and its current customers in the process of customer value co-creation. Moreover, this helps managers to avoid the situation where the customer value is not realized even though the software has been sold to the customer.

#### **1.4 Theoretical framework**

Theoretical frame of the study presents the relationship between most important theories and concepts, so it is possible to understand the aim of the study. In order to achieve the research goal and objectives, the research design was planned as detailed as possible. (Wilson 2010, 102) Theory frame covers value co-creation theories in customer value realization as seen in Figure 2. It also covers other theories related to value realization through co-creation. In addition, customer value expectations are part of the framework, since the service provider needs to understand its customers own value creation activities in customer sphere (Grönroos & Voima 2013, 4; Johnson & Selnes 2004, 2) as well with co-creation activities in the joint sphere before customer value can be realized.



**Figure 2. Theoretical framework**

As seen in Figure 2, customer value co-creation is divided in customer and joint sphere. According to Saarijärvi (Saarijärvi et al. 2013, 11-13), the first important step in customer value realization through value co-creation is clarifying what kind of value is created for customer: the firm must understand what kind of customer value it is providing for its current customers before the co-creation can occur (Johnson & Selnes 2004, 2). Hence, it is important that service provider first understands customer sphere, where customer has defined its value expectations for provider's services.

The next step in value realization through co-creation is joint sphere, where both the firm and customer work as a co-creators of customer value (Grönroos & Voima 2013, 9). In service industry, value realization occurs through co-creation process after value-in-use is experienced by the customer (Figure 2). In this co-creation process, different activities from both service provider and the customer are needed in order to help customer to realize the value and these co-creation activities are occurring in interaction between the service provider and the firm. (e.g. Aarikka-Stenroos & Jaakkola 2012, 22).

## 1.5 Key definitions

### Customer value

Customer value is defined as *economic worth of a seller's product or service offerings* to the customer (Woodruff & Flint 2006, 184-185). Customers are aiming to get as much benefits as possible from every solution they have bought and maximize their value. Customers evaluate value based on benefits and sacrifices: the more benefits they get from the service and the less sacrifices they have to make, the bigger the customer value is. (Buttle & Maklan 2015, 154; 164)

### Customer value expectation

Every customer has certain expectations or value dimensions why they buy something. These expectations drive customers to be more committed to the organization if service provider's services meet or exceed these value expectations. It is important to understand the value expectations in order to know what drives the purchase of customer. Every service provider should be able to answer to the question: *why did the customer buy a product and does provider's product meet customer's expectations?* (Woodruff 1997, 149; Butz & Goodstein 1996, 64)

### Value co-creation

Value co-creation is one of the key concepts in customer value creation (Saarijärvi et al. 2013, 6) and it is even seen that in service business, customer value cannot be created without this process (Grönroos 2008, 298; Vargo & Lusch 2004, 6). It is a process of customer value creation, which actively involves both the service provider and the customer when jointly creating customer value (Ng & Smith 2015, 225; Grönroos & Voima 2013, 1). In this process, the customer is always the final value creator, but firm works as a value facilitator and value co-creation in order to help customer in value realization (Grönroos & Voima 2010, 9).

### Value-in-use

Value of a bought service can be only realized when customer uses, consumes or interacts with the bought service. In other words, value-in-use occurs when a customer consumes provider's service and customer value does not occur before this, because customer does its evaluations about the service during this process. (Buttle & Maklan 2015, 157) Grönroos (2008, 298) and Vargo and Lusch (2004, 6) as well with Buttle and Maklan see that

customer value can only occur when customer value has been realized through value-in-use.

### Value realization

Value realization refers to the situation where customer evaluates to which extent the company helps customer to realize its expectations and goals. Hence, customer value will occur and be realized if customers experienced value is facilitated to achieve customers' goals and purposes in use situations. (Parasuraman 1997, 150;157). Yet, it is good to remember that customer value can only occur when customer value has been realized through value-in-use. Value realization failure is an opposite for value realization situation. Failure will occur if the value-in-use will not bring value to the customer. (Grönroos 2008 & Vargo & Lusch 2004).

## **1.6 Research methodology and case company selection**

There are three important strategic decisions, when planning the research and finding the best methodology, which are data collection, data analysis and data interpretation. Data collection is the process of acquiring information about the studied phenomenon. After this, the data should be analysed and interpreted in order to discover the research results. (Kananen 2011, 27-29).

Methodology of the study is qualitative research, because the goal is to get a comprehensive understanding about the phenomenon of value realization through value co-creation in software as a service industry (Hirsjärvi et al. 2003, 152). This qualitative study is following an abductive process (Dubois 2002, 555) in order to make it possible to make thorough analysis by systematically combining both theory and empirical world during the research process. Since the goal is to find out how the service providers can realize their customers value expectations through value co-creation process, abductive reasoning approach makes it possible to deepen the analysis of the topic while the research goes forward and to create a framework as a research result.

Because the goal is to get a comprehensive understanding about some unit of analysis (Marshall & Rossman 1995, 124-125), case study setting is used for this research. This makes it possible to have a focus on certain process and phenomenon inside a particular case company and to acquire more knowledge by this way (Koskinen, Alasuutari & Peltonen

2005, 156-157). Hence, case study setting was the fit best for this research, because the goal is to focus on the process of value co-creation and deepen the understanding about needed activities in the joint sphere.

A Finnish software as a service company was chosen as a case company, because the context of the study was to explore the phenomenon of value co-creation in the context of software as a service industry. This context was chosen based on the research gap (e.g. Payne et al. 2008). Besides this, chosen case company was a good fit for the study because it is offering a long term software solution for business-to-business companies and wants to emphasize realizing value for its current customers. Case company provides a software solution for business-to-business companies in order to help them to conduct more efficient sales. Customers of the Finnish software provider mostly use the software solution in their sales or marketing team, because they work closely in sales or lead generation in their daily work.

According to Hirsjärvi, Remes and Sarajaava (2003, 152;155) people are usually used as a source of information gathering. In this study the goal is to discover matters behind the service provider's current customers' thoughts in order to understand how the software company can conduct value for them and realize their expectations. In addition, because the goal is to understand current customers, data will be collected through semi-structured theme interviews for case company's current customers (Hirsjärvi et al. 2003, 155; Wilson 2010, 146-147).

Interviews will be conducted as face-to-face, distance or telephone interviews which enables utilization of benefits from all of these methods. Interviews will be done for the top management of the customer companies, especially for the sales and marketing directors because they are responsible of the control and agreements of the software. As well, they most likely know how their organization is using the software. Interviews were chosen to data collection because they are flexible and make it possible to ask supplementary questions, which help to gather more data about the research object. Semi-structured theme interviews were chosen, because there will be a greater flexibility and the interviewer can make sure the most important questions and themes are all covered. (Wilson 2010, 138;147)

Since the goal of the study is to understand how the service provider can co-create value with its current customers in order to ensure realization of customer expectations, we need

to identify customer's value expectations and understand what activities are needed in realizing these value expectations in value co-creation process. Because of this, customer interviews will focus on three main areas: *customers' value expectations, current process of co-creation as well as activities related to it and customer's level of value realization*. Besides these themes, interviews also focus on the usage process of the software because in order to understand how value can be realized through co-creation - it is important to understand how do the current customers utilize the software data, who utilizes it and how they have succeeded.

All the interviews will be recorded and interviewer will write notes from the interviews to reassure the storing of the data. Because the goal of the data analysis will be to understand current customers and the phenomenon of value co-creation from the collected data, the data will be analyzed via qualitative methods. (Hirsjärvi et al. 2003, 210) The challenge in analyzing qualitative data is that the researcher should be able to find out "*what the material wants to tell you*" and there is no one way to data analysis (Kananen 2011, 59).

In this study, the collected written data will be analyzed by a combination of different data analysis methods from different researchers (Strauss & Corbin 1990; Wilson 2010; Tuomi & Sarajärvi 2009; Hirsjärvi 2001; Fournier 1998). Data will be divided into separate parts for the analysis based on research question and sub-question. After this, the analysis and data interpretation will be conducted in nVivo program by using open and axial coding in identifying different categories, themes and patterns inside the data (e.g. Strauss & Corbin 1990; Fournier 1998, 347; Wilson 2010, 255).

In order to get reliable research, the amount of collected data should be as much as needed for some specific research (Hirsjärvi et al. 2003, 214-215). Still, there is no definition how many interviews should be conducted in qualitative research. Yet, the amount varies based on the nature of the research because it would be most important to collect enough data to respond to the research questions and by this way to reach the saturation point (Kananen 2011, 66-67; Straus & Corbin 1990). In this study, there will be at least 7 customer interviews conducted and the amount will be increased if needed in order to have enough data.

## 1.7 Delimitations

As in all of the researchers, also this research has some delimitations (e.g. Wilson 2010). First of all, even though customer value is a wide definition and it can be perceived from either company's or customer's perspective (Woodruff & Flint 2006, 184-185; Buttle & Maklan 2015, 154) - this study is only focusing on the value perceived by the customer. The goal is to ensure that service providers will know how to create value for their current customers, which means that this study is not focusing on how to generate more value for the service providers. Nevertheless, when the service provider knows how to generate more value for its clients - it also generates more value to the provider.

Research will be limited to the current customers of the case company, which means the results cannot straightly be applied to the new buying customers. Furthermore, data collection is done by interviews for current customers and it leaves out the interviews for the service provider even though value co-creation always has these two participants (Grönroos & Voima 2013, 7-10). This limitation was done in order to get more data about current customers, which can then be applied when service providers plan their own roles and activities for co-creation. Also, previous studies revealed the bigger importance of the customer sphere in planning value co-creation processes (e.g. Grönroos & Voima 2013; Johnson & Selnes 2004).

There are three different spheres in value co-creation, which are customer, joint and provider sphere (Grönroos & Voima 2013). Nevertheless, this study will only focus on two spheres because the research aims. Since the goal is to find out the crucial factors in value co-creation from current customers' perspective, it is convenient to focus on customer and joint sphere. Yet, provider sphere will be partly discussed in order to understand the service providers' role even better.

Last delimitation for the study originates from the history of value co-creation studies. Some of the previous researchers perceive the co-creation as a process where customer is acting act as a co-producer to help software as a service companies to develop their offerings (e.g. Vargo & Lusch 2004; Jaakkola & Halinen 2013). Yet, it is good to clarify that this study will not focus on co-production aspect - just only to the co-creation as a process to create more value to the current customers.

## 1.8 Structure of the study

The structure of the study is planned carefully to make the process coherent and to help the reader understand the main points. As first chapter served as an introduction for the study, the later chapters describe the research process itself and the main results. Page numbers and the entire structure of the study can be read from the table of the contents in pages 5 and 6. List of figures and tables can also be found after that.

Theoretical part of the study is divided into two separate chapters. First of all, the theory of customer value co-creation is presented. Hence, the chapter 2 firstly discusses the customer value expectations of the customers to deeper understanding about the main types of customer expectations and how they can be observed and managed. After the customer expectations, chapter two introduces the value co-creation process itself. Hence, the chapter discusses the main aspects (*customer-, joint- and provider sphere*) as well as the co-creation activities recognized in the previous studies.

Theory of value realization covers the chapter three. This chapter defines the value realization and the concept of value-in-use which is needed in order to realize customer value in service industry. Since value for customers cannot always be realized, the chapter also discusses the possible failures which might cause the situation where the customer value is not realized. Possible failures are represented to make it possible to avoid these issues. In the end of chapter three, the unique characteristics of software as a service are taken into account and a preliminary framework based on theoretical findings will be presented.

After the theoretical part, paper focuses on research design and methods. This chapter covers description of research approach and design, data collection and analysis as well as reliability and validity of the research, which all give an understanding and base for the empirical part of the study. Chapter five presents the analysis and main findings of the research. This chapter is structured based on the execution of the data analysis. Hence, it firstly represents identified main customer expectations and their types and also takes a stand on how these different expectations effect to value realization. Second part of the chapter five presents the main findings regarding recognized critical factors in value realization, which have been then modified as main joint value creation activities for value co-creation.

Chapter six presents the main research result, which is the framework for realizing customer value expectations as a value co-creation process. In the end, chapter seven, covers discussions and conclusions. These are divided into theoretical and managerial implications and research limitations and suggestions for the future research.

## 2. CUSTOMER VALUE CO-CREATION

When it comes to providing value for current customers, Webster (1994, 29) suggested a crucial question for companies, which every service provider should be able to answer: *“How do your customers define value and how well are you as a firm providing it?”*. By this, Webster proposed that firm’s activities and customer value outcomes need to be inspected jointly. Yet, even though this is essential for companies to help their customers to realize the value customers want and need, it is still difficult for companies to put this into practice (Hsieh & Yuan 2010, 1128).

This chapter serves as a first theoretical part for the research. It focuses on two key elements, which will help to understand customer value co-creation in customer value realization and the effect of customer expectations in this process. Hence, the chapter is divided into two parts, which are customer value expectations and value co-creation process.

### 2.1 Value expectations

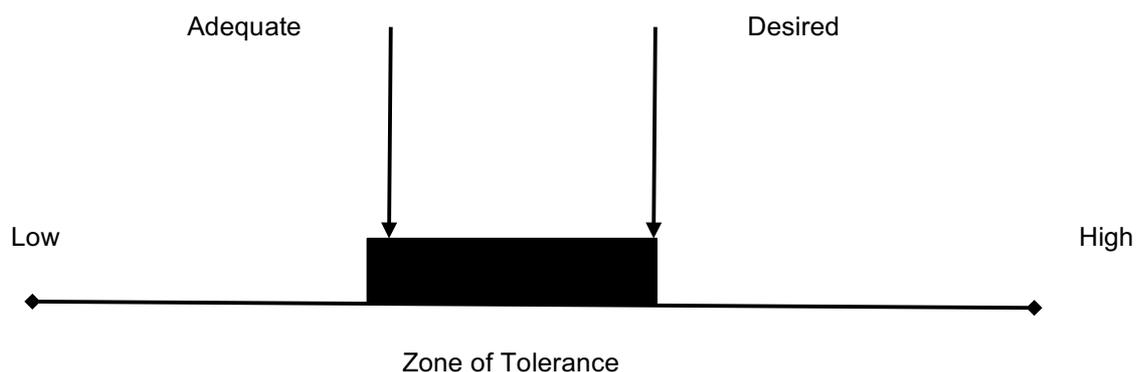
In order to create long-term business and quality relationships with customers, suppliers need to take into consideration the customer expectations and know how to manage them. (Ojasalo 2001, 200; 204). In other words, service providers need to comprehend what their customers are really expecting from the service and know what influences these expectations. Only after this it is possible to fulfill the needs of the customer. (Hsieh & Yuan 2010, 1129).

Parasuraman, Berry and Zeithaml (1991, 39) state that understanding customer expectations is a prerequisite for delivering superior services and value for current customers. Furthermore, Hewing (2014, 1) as well with other scholars states that customer value originates only from service providers solutions which will satisfy the customers’ needs. Besides this, companies need to understand that they will have to meet the customers’ expected requirements if they want to create customer value and enhance customer satisfaction in a long-term. Hence, this chapter discusses about the expectations that service customers have and presents the previous theories about how it is possible to manage them.

### 2.1.1 Service expectations

According to Helson's adaptation level theory (1964), customer's state of satisfaction or dissatisfaction towards a service results from comparison between customer's perception of service performance and customers' expectation level. Customer expectations are something that customers are expecting to receive or acquire from a service when they have bought it. Hence, understanding what these expectations are is crucial for firms in order to fulfill these expectations. (Hsieh & Yuan 2010, 1129).

Customer expectations can be defined as "*wants and desires*" or "*goals and purposes*" that customers feel that a service provider should offer for them rather than what service provider would offer (Hsieh & Yuan 2010, 1130; Woodruff 1997, 142). Hence, the expectations of the customers are based on their needs (Peppers & Rogers 2004, 149). Parasuraman, Berry and Zeithaml (1991, 42) have proposed that customer expectations comprise two different levels: desired and adequate level (Figure 3). Desired level is the level of service that customer hopes to receive whereas adequate level is the level of service that customer finds acceptable. In addition, desired level can be seen as perception how customer wants the service to perform and how customer believes the service "can be" or "should be". Adequate level on the other hand describes customer's evaluation about what the service "will be".



**Figure 3. Service level expectations (Parasuraman et al. 1991, 42)**

Every customer has a different zone of tolerance, which defines their customers adequate and desired service level of some value expectation (Figure 3). In other words, some customers might see certain expectations higher and more desired level than someone else, which makes the zone of tolerance different. Each of customer expectations has its

own zone of tolerance between these two levels. Since, the adequate level is the lowest level of customer expectations - service provider must perform above the adequate level in order to meet customers' expectations and provide quality service. Yet, the goal should be in fulfilling customers' desired expectations and even exceeding them in order to gain long-term customer satisfaction (Parasuraman et al. 1991, 42-45;47).

Customer expectations have a situational nature, because the needs of the customers are changing over time (Peppers & Rogers 2004, 145; Duchessi 2001, 70). Expectations are always based on something that customers are trying to accomplish with the bought service at some specific moment. Because of this, customers are more interested about personalized solutions which are provided to their individual needs and fit their situation. (Epp & Price 2011, 36). Hence, an important task for the service provider is to monitor customer expectations in order to accomplish this (Duchessi 2001, 73).

Service providers need to understand that different factors are affecting to customers' expectations. According to Woodruff (1997, 142), customers are creating their desired value based on goals and purposes, desired consequences in use situations and desired product attributes. Whereas, Zeithaml, Berry and Parasuraman (1993, 5) proposed that different factors are affecting adequate and desired service level. They see that service promises, personal needs, word of mouth and past experience are shaping desired service level and predicted service. Adequate service on the other hand is affected for example by predicted service and situational factors.

Some of the factors that affect customer expectations can be influenced, but not all of them. For example, customers zone of tolerance can decrease or increase if a company changes its pricing or gives different service promises. Yet, adequate service level is more likely to change than desired service level because adequate service level is more connected to contextual circumstances whereas desired service level is relatively stable and idiosyncratic. (Zeithaml et al. 1993, 5-6).

Hsieh and Yuan (2010) propose another approach for value expectations. They see that the need of the customer can be affected through external & internal factors and needs affect customer expectations. External factors are influencing the expectations outside from customer and internal factors are representing customers' own internal influence to their expectations. Provider's reputation, service function and service surroundings are examples about external factors whereas customer emotions could be an example about

internal factors. Hence, in order to meet customers' expectations and diverse customer needs - the firm should take into consideration both the external and internal factors.

### 2.1.2 Expectation Management

*"To design a service offering as solutions, marketers need to map entire customer experience to uncover what the customer is trying to accomplish"* (Epp & Price 2011, 1). Customer expectation management is essential for service providers in if they want to offer proper experiences for their customers. Managing customer expectations means different actions service provider does to make high customer satisfaction for its customers. As an example, providers can affect or "manipulate" its customers' expectations during the service delivery by interacting directly or indirectly with customers and by understanding their expectations. (Hsieh & Yuan 2010, 1141-1142).

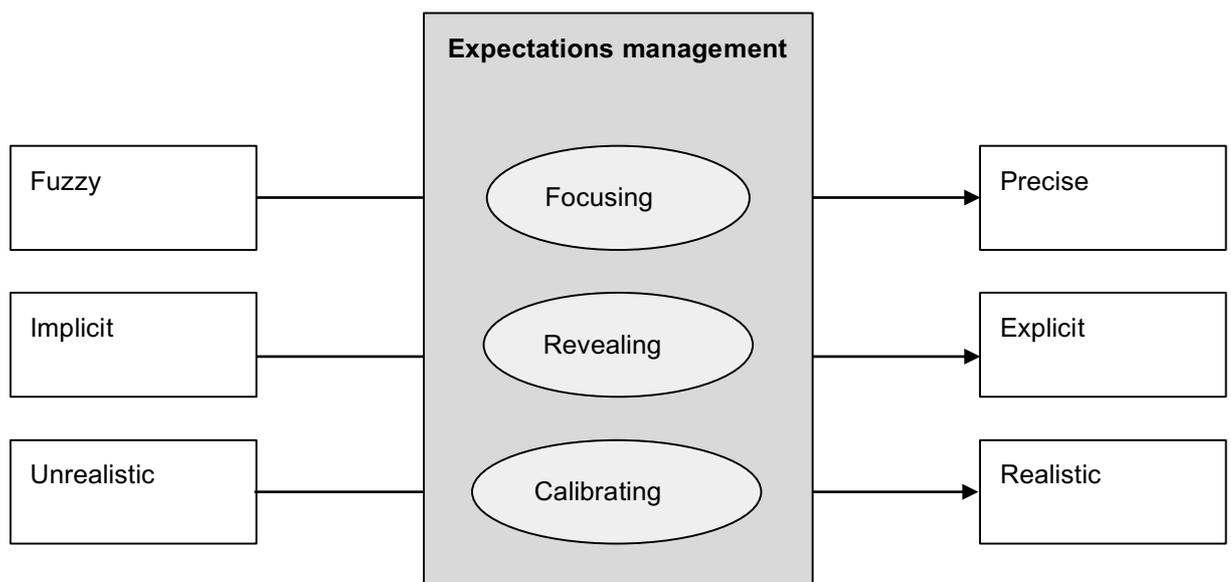
Based on the framework about zone of tolerance, where desired and adequate expectations of customers occur - it is seen that different customers in different situations are generating different expectations (Zeithaml 1993; Hsieh & Yuan 2010). Still, it is possible for service providers to affect to some of these expectations during customer's service delivery and service experience (Hsieh & Yuan 2010, 1142). According to Parasuraman, Berry and Zeithaml (1991, 46-47) service providers should measure two gaps: firstly, the gap between perceived- and adequate service. Secondly, the gap between perceived and desired service. Only this way they can know if they can realize customers value expectations and how.

Despite the importance of customer expectation management, service providers are lacking in-depth understanding on what their customers truly need (Woodruff 1997, 144). According to Ojasalo (2001, 200-203; 206) and Woodruff (1977, 144), the service process and outcome should match customers' value expectations. Therefore, Woodruff (1977) suggests that every service provider should reveal their customers' expectations and know that what are the most important of them. Then the provider can evaluate with the customer that in what level they are in delivering the value that the customers mostly want.

Different researchers discuss on expectation types and how they are formulated (e.g. Hsieh and Yuan 2010; Parasuraman et al. 1991), but not many of them have defined what these types. However, Ojasalo (2001, 200-203; 206) states that there are three main types of customer expectations, which are often making pitfalls for service providers: *fuzzy, implicit*

and *unrealistic expectations* (Figure 4). Because of this, service provider should try to help these expectations become *precise*, *explicit* and *realistic* in order to manage them. All of these different types of expectations can occur simultaneously, e.g. customer may have fuzzy, precise and unrealistic expectations at the same time. Besides this, the degree of each expectation may vary.

When customers are expecting for a change, but they do not have clear picture about what the change should be: they are having fuzzy expectations. In other words, fuzzy expectations are customer valuing ideas about some change they desire and which they need, but they are not certain about it. Fuzzy expectations make customer feel that service is unsatisfactory without understanding exactly why if the expectations will not be fulfilled. Hence, provider should help the customer to make these expectations precise (Figure 4).



**Figure 4. Framework for managing customer expectations (Ojasalo 2001, 206)**

Precise expectations are reversals for fuzzy expectations, because then customer precisely knows what they are expecting from the service. (Ojasalo 2001, 203). Second undesired expectation type are implicit expectations. These expectations usually bring customer to the situation they see some service characteristics and elements so self-evident that they do not even think about them consciously to materialize. As an end result for this, these expectations cannot be met. Instead of implicit expectations, customers should have explicit expectations. (Ojasalo 2001, 203).

Explicit expectations are clear and conscious wishes about the service in the mind of the customer. Hence, customer is adding explicit attention that the expectations are met and knows what has gone wrong if they are not. Third type of customer expectations are unrealistic and realistic expectations. Unrealistic expectations make a situation where customers might have expectations that just simply cannot be met. For example, customer might want something that is impossible for the service provider to provide. Because of this, the customer expectations should be as realistic as possible in order to meet them in reality. (Ojasalo 2001, 203).

In order to realize customer value, the service provider needs to know how to manage customer expectations as seen in Figure 4. Ojasalo (2001, 206) sees that service provider should focus on fuzzy expectations, reveal implicit expectations and calibrate unrealistic ones in order to gain long-term quality customer relationships. Duchessi (2001, 44-45; 78-79) agrees with Ojasalo (2001) that the customer expectations should be revealed and managed. Yet, he brings out another perspective that Ojasalo (2001) did not discuss: identifying critical success factors. By this Duchessi (2001) means the fact that every company has some business critical factors they are aiming to achieve with operations and usually those are aligned with the expectations. Hence, the service provider should focus on managing customer expectations (Figure 4), but also in revealing the business critical factors behind them. By this way it is possible to understand the expectations in more concrete level.

## **2.2 Value co-creation process**

Value co-creation is a collaborative process between the service provider and its customers, where customer and firm together coordinate their efforts in order to provide the most value for customer from providers' service offering (Grönroos & Voima 2013, 1; Gummerus 2013, 24). This process actively involves both of the parties and the goal of co-creation process is to help customer to realize the customer value through value-in-use. In other words, customer value can only be created jointly by firm and its customer. (Grönroos 2008, 298; Vargo & Lusch 2004, 6)

Gummerus (2013, 22) divides value co-creation theories in two categories. First category is the value co-creation process, which is divided into three main aspects. These aspects are: firm, co-creation and customer. As well, Grönroos and Voima (2013) and Payne,

Storbacka and Frown (2007) discuss about these same aspects as Gummerus (2013) with different names. Grönroos and Voima (2013, 9) describe these aspects as value co-creation spheres, which are provider, joint and customer sphere, whereas Payne and others (2007, 85) speak about customer, supplier and encounter processes. In all of these aspects, the customer value is generated through different direct or indirect actions, resources and interactions between the service provider and customer (Gummerus 2013, 22). In this research, we discuss the aspects by the name provided from Grönroos and Voima (2013).

Second value theory category that Gummerus (2013, 21-22) represents is outcome determination, which is aiming to understand what customer value is and how it is perceived or evaluated. In other words, value outcome determination explores that what are the value outcomes and how customers are making value assessments. Since, this research has its main focus in realizing customer value expectations through value co-creation - value outcomes play an important role. Yet, they are mostly discussed in the chapters about customer value expectations and customer value realization whereas this chapter has its main focus in value co-creation process and aspects and activities part of it.

### **2.2.1 Main aspects**

Main aspects of customer value co-creation process are *customer sphere*, *provider sphere* and *joint sphere* (Grönroos & Voima 2013, 9). As discussed in research limitations, the main focus will be in customer and joint sphere. Yet, provider activities done as a value facilitator and value co-creation are taken into account in some extent, but for example the entire process of service development is left out from this research, which is a big part of provider sphere.

#### *Customer sphere*

When creating customer value, customers should be independently combining different resources in order to make value creation possible (Grönroos & Voima 2013, 10). Hence, co-creation process starts with understanding customers value-creating processes in customer sphere. Since customer is always the final value creator, it is important that the service provider understands its customers and their value creation sphere. Only by this way provider can assist co-creation as a value facilitator and co-creator in the joint sphere. (Payne et al. 2007, 88; Grönroos & Voima 2012, 7)

Customer sphere is focusing on customers' independent actions and activities in value co-creation. Customer does independent value creation from service without the service provider, which means that other parties can only indirectly affect customers' value creation in this sphere. Customers are most interested in what they can do with the service in their possession and in addition, customer sphere concentrates on what customers do with the offering they gain from the service provider. Since the goal of customer sphere is to benefit as much as possible from provider's service offering, customers perform different daily activities which are helping them to gain value from the service (*e.g. they use the service to their business needs*). (Grönroos 2008, 303; Gummerus 2013, 24)

Payne, Storbacka and Frow (2006, 85-87) as well with Grönroos and Voima (2013, 10) define customer sphere as experimental sphere, because customer is creating value based on experiences and in the end of this sphere customer is experiencing value-in-use. They state that customers are making judgements about the service in customer sphere depending on the basis of whether present, past or imagined future experiences are valuable for them. Besides this, Payne, Storbacka and Frow (2006, 85-57) also see that creating successful customer experiences is less about the service itself and more about relationships.

Because of above described relationship experience, every customer creates an own relationship experience about service and its provider based on three main experiences which are customers' behavior, cognition and emotion. Emotions are customer's feelings and moods, which emphasize customers' preferences and attitudes towards the service. Cognition is based on customer's information processing and thirdly, customer's behavior is resulting from customers' experiences. These relational experiences lead to customer learning and involve customers in feeling, thinking and doing as an integral part of their role in value co-creation. In addition, firms should support their customers with their resources and by providing experiential encounters and interactions. By this way customers feel that service provider is helping them to utilize providers' resources. (Payne et al. 2006, 85-87)

It is good to remember that no co-creation occurs in this sphere: the service provider plays a passive role and can only indirectly affect to its customers' value creation in this sphere. Customer only interacts with service provider's resources (*e.g. mental and physical resources*) - not with the firm's processes. Yet, the service provider can have a direct effect to its customers' value creation sphere through value co-creation activities done in the joint

sphere. (Grönroos & Voima 2013, 10-11; Gummerus 2013, 24) Hence, it is important for service providers to understand customers' processes in their value creation sphere in order to develop an understanding about how their offering fits to customers in a best way (Payne et al. 2007, 87).

It is also good to understand that customer's independent value creation process is indirectly or directly influenced by wider ecosystem. In other words, customers value creation in their own system might be consisting of multiple different actors beyond firms control. Hence, it might be hard for service provider to know and understand all the issues happening in customer sphere. (Gummerus 2013, 24; Grönroos & Voima 2013,11)

### Provider sphere

Service provider acts as a value facilitator in the provider sphere (Grönroos 2008, 308) and the goal is to provide potential value-in-use for the customers by planning operations and conducting service development (Grönroos & Voima 2013, 10). In his research, Grönroos (2008, 306), proposes a service based business logic for service providers. This logic states that service provider's most important role is to understand its customers' value generation processes and everyday practices where service is used (*customer sphere*). In addition, firm can provide value for its customers if it understands these processes and knows how to support customers' creation of value-in-use.

Grönroos's (2008, 306) service based business logic makes three suggestions for service providers in provider sphere. First, provider should understand how it can support its customers' everyday processes and activities so it is possible to create well-defined customer practices. Secondly, the provider should focus to assist these value creation activities in value supporting way and thirdly to develop its service respond to everyday practices. With all of these, provider should take into consideration that in the joint sphere there should be interactions between the firm and its customers and these interactions can be pre-planned in provider sphere. These planned joint interactions able the firm to influence customers' value creation, co-creation and value fulfillment.

### Joint sphere

Customer and the service provider both act as value co-creators in the joint sphere. Joint sphere is the part of value co-creation where customer and firm directly interact with each

other in order to provide customer the optimal value-in-use. Customer is responsible of the value creation in the joint sphere, but firm is assisting its customers' value creation through dialogical process of direct interaction. (Grönroos & Voima 2013, 9)

Interactions between the service provider and its customers make it possible to influence customers independent value creation. Service providers should especially favor communication through direct contacts with customer during the consumption process, because in the joint sphere firm acts as a value co-creator and is there to help customer to realize the value potential. (Grönroos 2008, 307) The engagement with customers might have different types of effects. In the ideal situation, the firm is able to influence customer so that the customer value will be realized. Opposite effect would be, if the firm is having a negative effect to its customers' value creation through its engagement. Effect of co-creation can also go somewhere between, whereas firm is only partly helping customer in value creation. (Grönroos & Voima 2013, 9)

Since there can be many effects in co-creation of value in joint sphere, it is important to consider the best ways to interact in order to influence the customer in a right way. Hence, the quality of interactions increases its importance. As well, the service providers understanding of its customers' independent practices and actions becomes vital for this process. (Grönroos & Voima 2013, 9). Suggested roles and activities needed from both the service provider and its customers are discussed in the next chapter.

There are two different ways to interact with the customer in value co-creation process: direct and indirect interactions. Direct interactions are processes, where customers' and providers' resources (*e.g. people or systems*) interact together through coordinated, ongoing and active process. Indirect interaction on the other hand mean the situations where customer is using resources that are output of service provider's processes, such as service provided from the firm. Both of these are important, but especially the importance of direct interactions stands out in the joint sphere. (Grönroos & Voima 2012, 9-10).

### **2.2.2 Co-creation activities**

In value co-creation process, there are different activities done by the service provider and the customer in order to co-create value. Aarikka-Stenroos and Jaakkola (2012) discuss about collaborative activities, Grönroos and Voima (2013) about value co-creation activities, and Tuli, Kohli and Bharadwaj (2007) presented solution effectiveness activities in customer

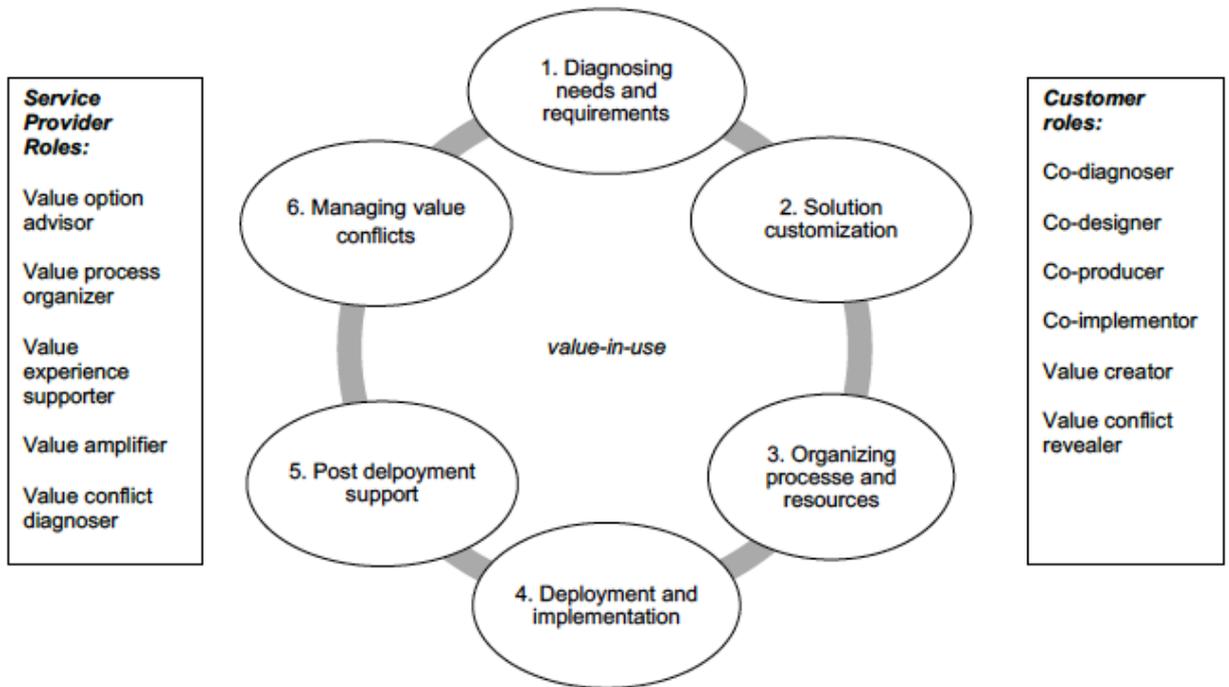
value creation. These activities presented by different scholars are crucial in realizing customer value through value co-creation. These activities can be seen as inputs: customer and provider need to give some inputs during the process of value co-creation (*e.g. information or service support*) in order to achieve a common goal about providing customer as much value as possible (Grönroos & Voima 2013, 5).

Value creation activities are different depending on the situation and phase of value co-creation and they always involve both customer and the service provider (Grönroos & Voima 2013, 6-8). According to Grönroos and Voima (2013, 6-8) and other scholars (*e.g. Voima et al. 2010*), customers are responsible of two main activities in value co-creation. Firstly, customer is responsible of the value generating process, which in other word can be described as consumption of the service - and second, customer performs value-supporting interactions with the firm. In these value supporting interactions, customer interacts with the firm in different situations during the consumption and service delivery process. Firms on the other hand are performing as value facilitator and value co-creator, which means that their activities are helping and assisting the customer in their value generating processes. (Grönroos & Voima 2013; Aarikka-Stenroos & Jaakkola 2012; Tuli et al. 2007; Voima, Heinonen and Strandvik 2010, 2) The roles of customer and the firm are also different depending on the activity that is carried through (Aarikka-Stenroos & Jaakkola 2012, 22).

Tuli, Kohli and Bhardwaj (2007, 1;6-8) divide value creation activities in four phases. They see that *requirements definition, service customization and integration, deployment and post deployment support* are affecting to the solution effectiveness that service provider is offering for its customers. According to the scholars, all these activities are needed to provide solution, which meets the needs and expectations of the customer. Aarikka-Stenroos and Jaakkola (2012, 22) see value co-creation process as a joint problem solving process and they suggested similar activities with Tuli and others (2007), except they have five activities in their model. According to their framework, main activities in value co-creation process are *diagnosing needs, designing and producing the solution, implementing the solution, managing value conflicts and organizing processes and resources*.

Figure 5 combines the theories from Aarikka-Stenroos and Jaakkola (2012) and Tuli, Kohli and Bhardwaj (2007). Value creation activities are divided into six different activity types which occur after each other during value co-creation process. First value co-creating activity is diagnosing needs and requirements. According to Aarikka-Stenroos and Jaakkola (2012, 20-22), co-creation process begins with diagnosing needs and identifying the goals

for the exchange. In this stage, provider acts as a value option advisor and customer has the role of co-diagnoser - it is important for the provider to perform a proper diagnosis about customers' needs and expectations and helps the customer to articulate their problem.



**Figure 5. Collaborative activities in value co-creation process (edited from Aarikka-Stenroos & Jaakkola 2012, 22; Tuli et al. 2007, 1;6-10)**

Tuli, Kohli and Bhardwaj (2007, 6-8) describe first activity very similar as Aarikka-Stenroos and Jaakkola (2012, 22). Finding out customer requirements is the key part in making successful co-creation since the service provider can only offer solution if it understands customers' needs. Yet, scholars see that there is one crucial point to understand regarding diagnosing customers' needs: customers' might not be able to communicate their needs to a supplier, because they frequently are not fully cognizant about their business needs. In addition, the service provider needs to ask the right questions from its customers in order to identify customers' recognized and unrecognized needs. With all this, the service provider needs to get a broader understanding about its customers' business needs. For example, provider needs to understand its customers' business and operating processes, business model and labor situation - and most importantly, customers both current and future needs.

Second activity is solution customization, which involves modifying the service solution to respond to some specific identified needs and situation of the customer. In order to do this, the service provider has to have good understanding about its customers' requirements. After this, the service provider can plan with the customer how to provide the offered solution in a best way. In this part, provider continues to act as a value option advisor when giving value proposition and proposed value-in-use potential for the customer. Customer has the role of co-designer, since the firm and customer must interact in this phase in order to have a proper communication about value-in-use expectations and potential of different solutions. (Aarikka-Stenroos & Jaakkola 2012, 20-12; Tuli et al. 2007, 7) According to Aarikka-Stenroos and Jaakkola (2012, 20-21) second activity is most important part in value co-creation process because it is the key in planning how the optimal value-in-use can occur for the customer.

Organizing process and resources is the third activity in the value co-creation process, where service provider has the role of value process organizer. In this phase, the firm has to structure the co-creation process as well with identifying, activating, collecting and integrating all the relevant resources to make value creation possible. Customer should take the role of co-producer, but they might not adapt this role without an assistance. Customers might feel insecure about usability of their resources and information in problem solving and because of this they need motivation and clear procedures to integrate resources. Hence, it is important to involve them in this activity by communication. (Aarikka-Stenroos & Jaakkola 2012, 21-22)

After organizing processes and resources, the service provider needs to do the deployment and implementation of the service. This activity includes the delivery of the service as well with integrating or installing it to the customers' environment. Most importantly, deployment includes managing "people aspects" of the customer which means understanding customers' personnel's capabilities. Individualized capability understanding is important in giving the appropriate information and training needed to each who utilizes provided solution. (Tuli et al. 2007, 7) Customer has the role of co-implementor and service provider has a role of value experience supporter in this phase. Hence, the provider helps the customer to utilize provided solutions in a way that helps customers to gain greater value-in-use. Yet, sometimes the customer might be running part of the implementation without the supplier. Still, value realization is more likely to occur if service provider is involved in the implementation or widely supports its customers. (Aarikka-Stenroos & Jaakkola 2012, 22-23)

Tuli, Kohli and Bhardwaj (2007, 7) see that post deployments support can be seen as a critical part of providing the service solution. Especially if the service provider is offering an ongoing service for customer. Customer will need support during this relationship and the idea of post deployment support is to support customer whenever they need help in utilization process of the service. Post deployment support for example includes operating information, routine maintenance and taking care of evolving needs of the customer. (Tuli et al. 2007, 7) In addition, the role of the firm could be seen as value amplifier and customers' as value creator, since already in this phase the customer is aiming to create value from implemented solution.

After and during all these activities, it is important to manage value conflicts. Value conflicts between the provider and customer may occur if there are different opinions about something, for example the most potential value-in-use. In this situation, suppliers might see that customers are not open enough about their expectations or they do not add sufficient effort to the use of the service whereas customers might see providers rely too much on their own value proposal and do not listen to the needs of the customer. (Aarikka-Stenroos & Jaakkola 2012, 21-22) Scholars did not provide any specific roles for firm and customer for this activity in their research. Nevertheless, because the goal of this activity is to manage value conflicts (Aarikka-Stenroos & Jaakkola 2012, 21-22), the firm will be given the role of value conflict diagnoser is and customer the role of value conflict revealer. This means that the firm is responsible in diagnosing if the potential value-in-use is not occurring in the customers' end and the customer is responsible in revealing its thoughts and needs in the situation where they feel that value-in-use is not most likely to occur.

### **3. VALUE REALIZATION**

Customer value expectations and value co-creation process are already covered in the previous chapters and all these elements are needed in order to reach customer value realization (e.g. Grönroos & Voima 2013). Hence, this chapter provides a review about how customers determine value realization as well as how the pivotal value-in-use experience is conducted (e.g. Grönroos 2008).

Thirdly, chapter discusses the factors which are needed to be taken into account in order to avoid value realization failure, which means the situation where customer value is not realized. Unique characteristics of what is known about software as a service industry value realization are discussed in the end and the last part of the chapter provides a preliminary framework for realizing customer value expectations through value co-creation based on all the most relevant theoretical findings.

#### **3.1 Definition**

Value realization refers to the situation where the customer evaluates to which extent the company's service has helped customer to realize its expectations (Parasuraman 1997, 150;157). Firm can only create value for its customers if the customer value is realized, which makes value realization an end result of successful value co-creation. Value realization occurs through customers' experience if customer perceives enough benefits from bought service during value-in-use. (Grönroos 2008, 304; Grönroos & Voima 2013, 2) Hence, some of the scholars discuss about customer perceived value when they refer to customers' evaluation about how the service experience has met their expectations (e.g. Chen & Dubinsky 2013).

Aarikka-Stenroos and Jaakkola (2012, 24) state that it is pivotal for service provider and its customers to have a mutual understanding about how to generate optimal value-in-use in order to realize the customer value, which brings out the importance of taking customer expectations into account. Value is always perceived and determined by the customer and value cannot exist before the customer has experienced value-in-use. In other words, customer must use the service in everyday practices to experience it and evaluate if it

provides value or not - and only perceived customer value brings to the situation where customer value is realized. (Grönroos 2008, 304; Grönroos & Voima 2013, 2)

Some scholars suggest that there are other elements connected to value realization experience as well with the evaluation between perceived and expected service. According to Liu, Leach and Bernhardt (2003; 566-567), customer evaluation of the service is based on three different factors after value-in-use experience. They propose that customers firstly evaluate services by gained economic value, which means the trade of between cost and quality. Secondly, the quality of the relationship has an impact on customers' value perception and therefore the service provider should aim in building long-term relationships with its customers. As well with economic value and relationship factor, the customer evaluates the service based on other similar and competitive offerings.

Chen and Dubinsky (2003, 326) discuss value realization as a customer perceived value. They describe value realization as "*customers' overall assessment of the utility of the service based on perceptions of what is received and given*". Hence, the value realization can be seen as a successful tradeoff between the service provider and the firm. Perhaps for this reason, also some other scholars discuss value realization by the term value-in-exchange, because it means the concept where the customer exchanges resources (*money*) for the firm in order to receive value from bought services. Yet, this value-in-exchange only occurs as a value realization if the value-in-use can be created for customer - otherwise it will cause value realization failure, which means the situation where exchange did not fulfill customers' expectations. (Grönroos 2008, 304)

In order to complete value realization, service providers need to understand five dimensions of value, which are *what, how, where, when, and who*. What stands for the question about what the customer value is based on? Hence, the provider should understand customers' individual needs to personalize the service offering. Whereas, how reflects to the value-in-use. Service provider needs to know how the value is created in the customer's end in order to help in co-creating and facilitating value. (Voima et al. 2010, 5-10; Grönroos & Voima 2013, 9)

According to Voima, Heinonen and Strandvik (2010, 6), third dimension of value is to understand is where the customer value is created. Value formation takes its place in multiple different spaces of customers' lives and because of this, the firm should try to understand as many of these spaces as possible. When stands for the fact that the service

provider should know when its customer is experiencing the value in order to promote similar events. As Grönroos and Voima (2013, 9) state, value is always created when customer experiences value-in-use. Yet, it is important to know when this is happening and in what kind of situations. Besides, Voima, Heinonen and Strandvik (2010, 6) propose that customer value is not only realized as one-time value-in-use - they see that value occurs also as a “value-in-life”, which means the in the ideal situation value is part of customers’ everyday life as well.

Fifth value dimension is who, which perhaps has the most important role when it comes to value realization. Customers are creating different experiences for themselves during the value-in-use and because of this, the value might be realized differently depending on the customer. (Grönroos & Voima 2013, 7) Voima, Heinonen and Strandvik (2010, 11) suggest that in customer value realization, the focus should be in “*how customers live their lives*” rather than in “*how customers consume*”. Scholars propose that service providers should add more focus on routines, activities and practices of their customers to understand how they should plan and design the service delivery process for the specific customer. Hence, providers should focus more on customer centered challenges than service centered challenge and in addition to this - it is seen important to have a real interest towards customers’ personal interests and activities as well with their hopes and dreams.

If service provider can reach understanding about their customers’ behavior in their everyday life and knows what motivates them, it is possible to help them in value formation. The focal point of value realization does not lie behind the how customer wants to be served, it lies behind the situation and current state of customers’ life. Since, understanding an individual customers’ needs and desires help to understand what role they want in value creation. (Voima et al. 2010, 11-12). Heinonen and Strandvik (2015, 3-5) also suggest that there are some elements which affect to value realization, but the service provider cannot straightly affect them. For example, the earlier experience of the customers, offering of other providers and customer’s own strategies and goals have an big effect to how customer evaluates if value is realized or not. Nevertheless, the service provider should always have the main focus in understanding all the factors and focusing on the ones that might possible to somehow control.

There are two more notions to make regarding the definition of customer value realization. First is that customer perceived value changes overtime and customers determine value differently depending on the situation. Hence, only those firms who continue to refine the

value provided for the customer as well activities related to value co-creation and understand the situation of each customer can manage the long-term customer relationships by ensuring customer value realization. (e.g. Liu, Leach and Bernhardt 2003, 566-567; Woodruff 1997, 144, Ojasalo 2001, 210)

Another issue is that the level of value realization might differ. Even though value realization levels by this term have not been examined by any scholar, it has been found out that customers evaluate service quality and perceive services in different levels (e.g. Zeithaml et al. 1990, 16; Anderson, Fornell & Lehmann 1994, 54), which affect to the level of how much customers feel they have gained value from providers offering. In other words, some of the customers are able to realize their desired level of their expectations and some of them only the adequate level or even less (Parasuraman et al. 1991, 42; Ojasalo 2001, 210).

Naturally, the goal is to help customers realize expectations as high level as possible because the more value customer is able to gain the more satisfied they will be (e.g. Hsieh & Yuan 2010, 1129). Butz and Goodstein (1996, 69) even discuss about *unanticipated value*, which means that the service provider is able to provide value for its customers that exceeds all the expectations of them. In these situations, the service provider has a greater willingness to solve customers' problems or there is something else that is unexpected and meets the customer needs.

### **3.2. Most common failures**

There might be situations, where customer value is not realized. In these situations, customer won't perceive enough expected value. Usually this is an end result of unsuccessful co-creation: either the firm can fail in co-creation by not filling the expectations of the customer or the customer might be non-receptive towards value co-creation. (e.g. Aarikka-Stenroos & Jaakkola 2012, 23-34; Payne et al. 2007; Malshe & Friend 2017, 1-3) This chapter discusses the most common value realization failure situations and how to avoid them. Some of the recognized failures will be discussed more detailed than others, because the elements of successful co-creation are already presented.

Value realization might not occur, if the firm fails in value co-creation. This might most likely to be caused due to lack of customer understanding, communication or because of misunderstandings (Zeithaml et al. 1990; Hsieh & Yuan 2010; Payne et al. 2007). All these

three elements are important for value co-creation, because they are needed in planning the most important activities for supporting customer's value creation (e.g. Aarikka-Stenroos & Jaakkola 2012). Hence, if the service provider fails in some of these, it might be unable to help its customers to realize their expected value.

Many of the service providers are not adding enough effort in understanding their customer in the best possible way, which causes lack of customer understanding. This happens if the service provider does not understand the customer, customer's processes or how the customer and the service interact in the customer sphere. (e.g. Grönroos 2008, 306; Butz & Goodstein, 1996 72) Secondly, communication has a crucial role for value co-creation, because the process is based on interaction. Some providers fail in communication because they have either understood the customer needs in a wrong way (*previous lack of understanding*), or they forget to properly dialogically communicate with the customers. (e.g. Grönroos 2008, 298; Aarikka-Stenroos & Jaakkola 2012, 20-12;16)

Communication failure might also occur if the service provider is not properly communicating to its customers about the offering and what it is possible to gain with it (Zeithaml 51-52; 115). Then the customer does not properly know what to expect. Usually failed communication leads to the situation which makes it impossible to realize customer value. Since the key to customer value realization is communication and interaction between the service provider and the customer (e.g. Grönroos & Voima 2013; Vargo & Lusch 2004), deeper-level engagement is crucial for the relationship. Hence, both of the parties need to be active and for example share information in order to make value realization possible.

Misunderstanding might be cause because the service provider does not add enough effort in understanding the customers' business and environment where the service is used (e.g. Tuli et al. 2007, 13; Butz & Goodstein 1996, 72). Without a proper understanding, the service provider might build and plan the entire co-creation process wrongly, which is why the service providers should add an extra effort in understanding the unique needs and situations of their customer to help the value realization occur. (e.g. Voima et al. 2010, 5-10; Zeithaml et al. 1990, 16; Hsieh & Yuan 2010, 1128)

Value realization failure might also be caused because of the customer fails in value co-creation and most common reason for failure is that customers are non-receptive. Non-receptive customers might not be willing to cooperate or engage in value co-creation, which

makes it impossible to realize customer value because customer participation is fundamental for value co-creation (Smith 2013, 1890). Non-receptivity might occur as a lack of trust or customers might be unwilling to share information. Besides these, customer might be ambivalence and because of this they might be apprehensive about their invested resources and time in these co-creation efforts. (e.g. Malshe & Friend 2017,1-5;8-13)

Malshe and Friend (2017,9-15) have proposed that service provider can manage customer non-receptivity. Firstly, for managing customer apathy, suppliers should act as a instructive initiative so that they are proactively looking to serve the customer even better all the time - even when thing would be going well. By this way they can show customer that they are not willing to be passive participant and that it is possible to engage in deeper level conversations, which benefit the customer even more and motivate them. Secondly, provider's ability to focus on collaborative developing and successful implementation programs as well with helping customer to achieve more challenging goals are part of inspiration and implementation, which helps to manage customers with apathy.

Complexity absorption and value alignment are ways to manage customer ambivalence. First one is about understanding customers' business complexity and adapting processes to meet potential challenges and harness opportunities. If the service provider has a capability to understand the business of its customers, it is possible to better understand the problems customers are facing. Value alignment means the ability to highlight shared common values with customers, fortifying customer core value and support customer act upon these values. This will address trust and openness, which helps the customer and provider act upon same goals. (Malshe & Friend 2017, 9-15)

Lastly, credibility building and objective centrality are helping to manage customer annoyance. Credibility building strategy is provider's ability to instill confidence in the customer to secure trust. Credibility can be built with different actions. For example by being a thought leader in the industry or by managing and meeting expectations. Second way to manage customer annoyance is objective centrality. This means is the provider's ability to prioritize customer objectives over provider's own and communicating this to the customer, which makes the customer feel more trust. (Malshe & Friend 2017, 16-19)

### 3.3 Software as a Service Industry

In the previously parts, we have covered the most important issues regarding value expectations, value co-creation and value realization without focusing on any specific industry. This chapter has its focus in value realization by taking into account the unique characteristics of the software as a service industry. Because of value realization or co-creation is not previously studied in this context, this chapter reflects to the information what is known about creating customer value from both software as a service as well as business-to-business service industries.

Software companies are interested in generating long-time value for their customers and users (Ahn et al. 2006, 552-553; Gounaris 2005, 126). The industry is fundamentally different from others and there are many unique characteristics because the business is based on licensing and delivery model of internet based services (Buxman et al. 2013, 3). Overall, services need a lot differentiation when delivering them to customers in order to ensure customer value. Services also need more quality control as well as supplier adaptability and credibility than products. Besides this, customers do not only buy and immediately use services. Instead, they are playing an active role in the entire service delivery process, because their actions affect the quality of their service experience. (Kotler & Keller 2012, 391; 429)

When thinking about value realization for current customers of software provider, previously studies in software as a service industry as well as business service industry emphasize similar things. Many scholars emphasize the importance of successful service delivery and implementation process as well as the quality of the service relationship (e.g. Parasuraman & Colby 2001; Kotler & Keller 2016; Gounaris 2005). As well, the software itself and its quality are playing an important role, but in this study they are left from discussion because the focus is in the co-creation process of realizing customer value.

Successful service value delivery includes easy ordering, installation and delivery as well as maintenance of the service. With these, customer needs identification as well as training should be done in order to ensure the service is designed for the needs of the customer and training planned to meet these needs. (Kotler & Keller 2016, 395) The goal of successful service delivery is to ensure that customers know how to use the service and by this way help them to gain value with it. In software as a service industry this especially is

important, because service usage level and customer knowledge have a straight effect to customer satisfaction. (Ahn et al. 2006, 378; 386; Verhoef 2003, 32)

Gounaris (2005) and Verhoef (2003) both discuss the importance of creating long lasting customer relationships. Gounaris (2005, 127, 133) sees that bonding, trust and commitment are key things to ensure that the software provider is providing value to its current customers. In software industry, the value creation for current customers can be seen as a process of relation building because degree of trust and relationship affect to the customer perceived value. Hence, the service provider should add special attention to these. Trust and bonding are factors that service provider is building and gradually deepening with its customers during time.

Commitment is an end result of bonding and building trust (Gounaris 2005, 135). In software as a service value creation, commitment has a big role - it has a major positive impact on customer retention, which can be seen as long time customer value realization. Commitment is usually defined as "*extent to which an exchange partner decides to continue a valued relationship*", which means it is the situation where customers of the software company believe on the service benefits and want to continue the relationship with the service provider. As well with this, commitment could be defined as customer loyalty. Loyal customers are more likely to add efforts to the cooperative relationship and commitment even is a prerequisite for relationship maintenance and development. (Verhoef 2003, 32-33;41) Gounaris (2005, 135) also brings out the fact that in order to create long-term commitment for current customers, the service provider needs to have the ability to enrich the cooperation over time. This is seen important since it strengthens the relationship and the long lasting value.

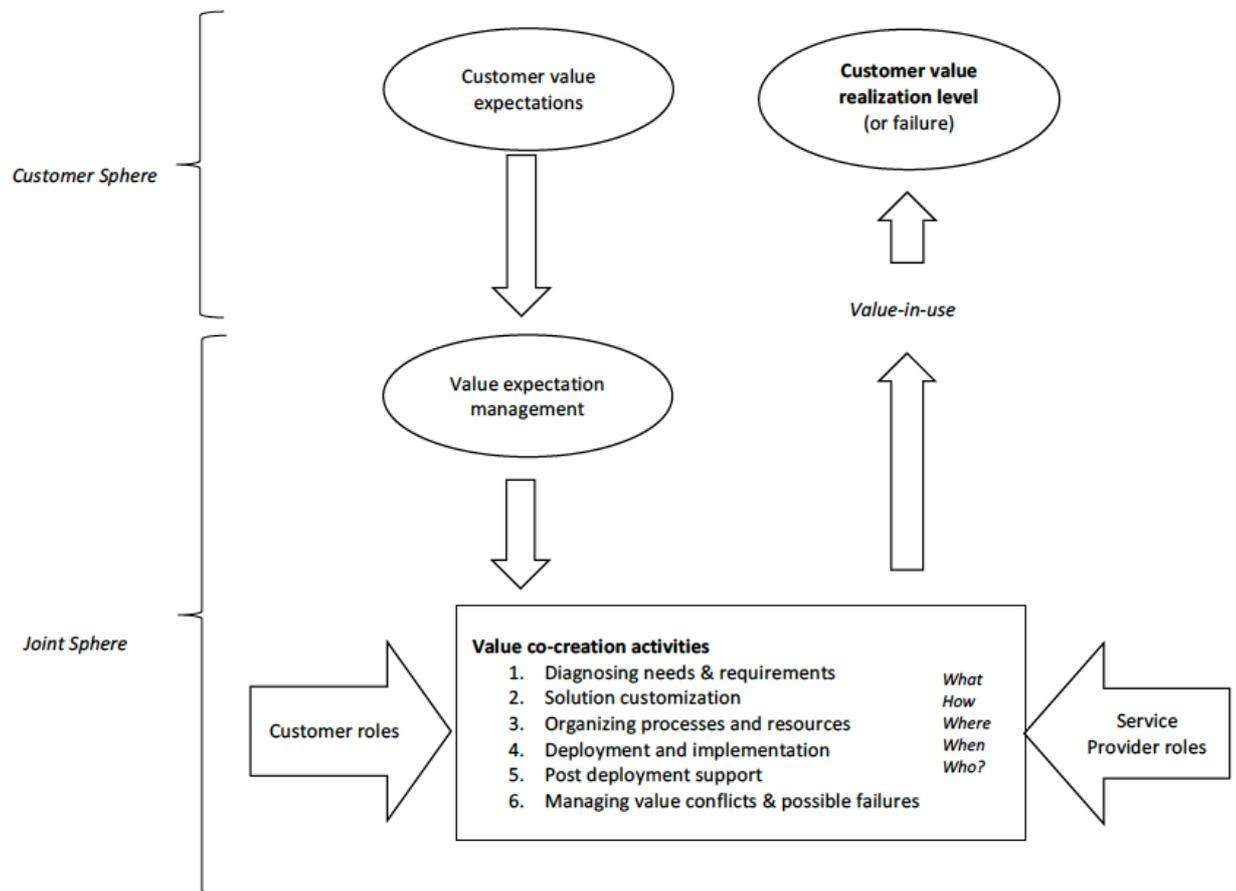
With successful implementation and trustful relationships, Parasuraman and Colby (2001, 148, 152-178) state that deep customer focus is one of the core things while providing business technology services. Even though the provided service is the same, every customer might have different needs and expectations. Scholars especially bring out the importance of responsive customer care and reassuring communication, which emphasizes the same issues as co-creation theories (e.g. Grönroos & Voima 2013). Hence, there should be interaction between the software provider and its customers in order to know customers' needs and realize them. Responsive customer care also brings out the importance of different ways how the provider can ensure their customers' know-how to use the service in order to create value-in-use with it.

### 3.4 Preliminary framework

Presenting a preliminary framework is typical for an abductive research approach (Dubois and Gadde 2002, 555). Hence, this chapter illustrates a tentative framework for realizing customer value expectations through value co-creation process. The preliminary framework is based on the previous literature and knowledge in the field. It is consisting of preconceptions and will be developed in the empirical part of the study. (Dubois & Gadde 2002, 55) The abductive research approach will also be discussed more detailed in the next chapter in order to articulate the importance of this approach for this study.

Figure 6 has combined the previous information regarding *value expectations*, *value co-creation process* as well as *value realization*. It illustrates value realization as process, where the service providers can affect its current customers value realization in customer sphere through joint sphere by managing the customer expectations and different value co-creation activities. (e.g. Grönroos & Voima 2013; Ojasalo 2001; Johnson & Selnes 2004) The goal of this co-creation process, as seen in Figure 6, is to reach as high level of customer value realization as possible (e.g. Zeithaml et al. 1991; Anderson et al. 1994).

Customer participates co-creation in both of the spheres. Hence, the ultimate goal of the service provider is to help customers to realize expectations by interacting with them in the joint sphere. Nevertheless, understanding of customer sphere is needed in order to carry out this co-creation process. (e.g. Gummerus 2013). Value co-creation process begins by assessing the customer value expectations, which need to be understood by the provider. After this it is possible to manage them and plan the best co-creation activities for this specific customer. (e.g. Parasuraman et al. 1991; Aarikka-Stenroos & Jaakkola 2012) When managing customer expectations, the service provider should be able to recognize all the expectations of the customer and the zone of tolerance in order to later measure level of value realization (e.g. Parasuraman et al. 1991). As well, provider should focus, reveal and calibrate expectations in order to manage them (Ojasalo 2001).



**Figure 6. Preliminary framework for realizing customer expectations**

After customer expectations, the provider should focus on co-creation activities. Activities are divided into six different phases and the role of both provider and its customer varies depending on the activity conducted (Aarikka-Stenroos & Jaakkola 2012; Tuli et al. 2007). Managing possible failures is also included in the activities in order to avoid situations where value is not realized (e.g. Malshe & Friend 2017). Besides, to be able to realize the value for customer as high level as possible, the service provider should understand the five dimensions of value when conducting each activity in joint sphere (*what, how, where, when, who*) (Voima et al 2010; Grönroos & Voima 2013).

Service provider cannot directly affect to customers' value-in-use experience in the customer sphere where the customer uses the service. In addition, the goal is to perform all the previously discussed parts and joint activities as well as possible. (e.g. Grönroos &

Voima 2013). As well, the provider should aim to understand how customer evaluates the value and measure the level of value realization (e.g. Gummerus 2013).

## **4. RESEARCH DESIGN AND METHODS**

Since, the aim of the research is to find out how software companies can help their customers in realizing their value expectations through value co-creation process, research approach and design has been planned to meet this aim. Research of this study is a qualitative research and it was conducted with abductive approach as a case study. Data was collected through nine semi-structured theme interviews, which were done as face-to-face, distance or telephone interviews with current customers of the case company.

This chapter discusses the research methodology that was used in conducting the research. First, the chapter will provide an understanding about the research approach and design, whereas the second part focuses on data collection methods. Data analysis and research reliability and validity will be discussed in the end.

### **4.1 Research approach and design**

Chosen methodology and ways of data collection depend on the research problem. There are two main methodologies, which both have different recommendations for data collection and analysis: qualitative and quantitative research methodology. (Kananen 2011, 29-30;36) If we want to get a deeper understanding of some phenomenon and know what is it all about in more deep level, qualitative research method is better. Quantitative research on the other hand, is more numerical and objective research, which helps to discover some previously known phenomenon. (Kananen 2011, 36;72 & Hirsjärvi et al. 2003, 124)

Qualitative research method was chosen to get more deep understanding about the studied phenomenon. It was better method for this research, because numerical information would not reveal the main expectations or needed activities. Instead, qualitative research method made it possible to focus more specifically on the co-creation process, because the method has its main focus in some certain phenomenon, which will be studied as thoroughly as possible. (Puusa & Juuti 2011, 47-48) As well with this, the research design was one of the reasons why qualitative method was chosen. The design of the qualitative study is open and flexible and the study method emphasizes perspectives and experiences of the people

participated in the research (Puusa & Juuti 2011, 51). In this case, qualitative study helped to understand the current customers of the case company.

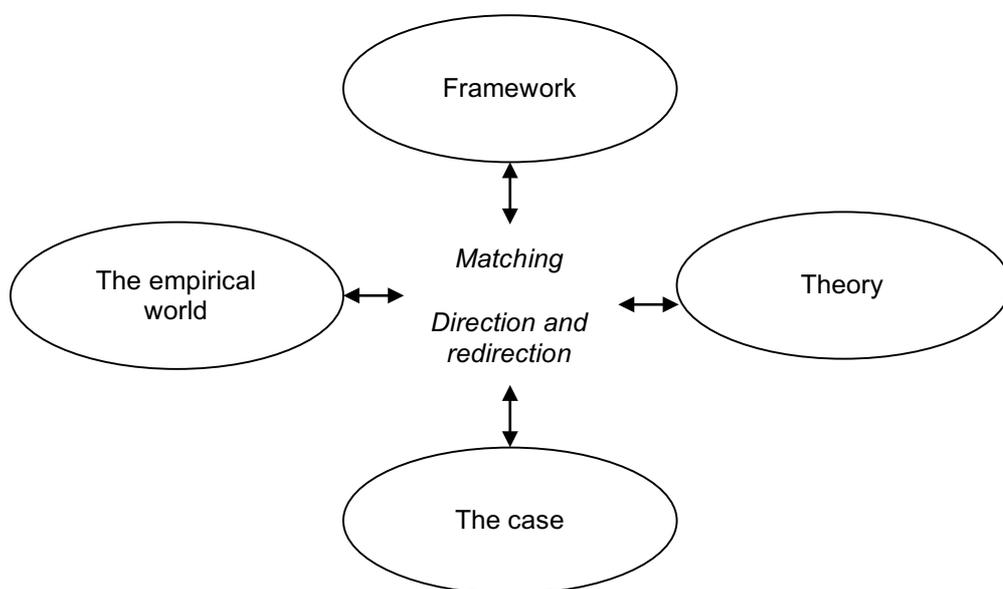
Qualitative method made it possible to develop new theory for value co-creation. This method will help in testing what is already known, but also in discovering new as well developing empirically grounded theories (Flick 2014, 16; 398). Challenge and benefit of qualitative study is that the research design might change over time, because of the nature of the study (Hirsjärvi & Hurme 2001, 25). Hence, the study method requires a lot of reflexivity from the researcher. Researcher has to be able to do deep observations about the studied phenomenon and after this interpret and communicate them. (Flick 2014, 15-16) Nevertheless, this flexible nature of qualitative study made it possible to adapt theories and empirical part during the research proceeded.

Qualitative study can be based on some specific case rather than random sampling (Flinck 2014, 180) and in this case, a case study approach was chosen for this study. Case study approach is always focusing on a certain “case” or event, which helps to analyze the phenomenon as deeply as possible (Eskola & Suoranta 2014, 18). Hence, this approach makes it possible to explore the process of value co-creation and customer’s value realization closely since it is possible to focus on a certain company’s customers. Besides this, case study approach helps to gather wide amount of data and precise analysis about studied phenomenon (Koskinen et al. 2005, 157-159). Which in this case was needed in order to get comprehensive understanding in value co-creation.

Case study makes it possible to explore phenomenon in a concrete context (Räsänen, Anttila and Malin 2004, 295-297). By this way it helps to reveal the best results for this study, because via “real-life” customers it is possible to collect valid data about how customers consume the service and what they expect. Yet, case study approach has some elements that should be considered before conducting the research. First of all, the main difficulty in the case study is to handle the interrelatedness of the various elements (Dubois & Gadde 2002, 555) and because of this, the research, data collection and analysis has been thoroughly pre-planned and conducted. Secondly, because the case study is observing the phenomenon very closely, it is important that researcher keeps an objective role (Räsänen et al. 2004, 298-299).

Approach in this research will follow an abductive process. According to Dubois and Gadde (2002, 555), abductive approach means that during the research process, researcher

moves back and forth between field observations and theoretical concepts to expand understanding about theory and empirical phenomena (Figure 7). This approach was chosen because of the exploratory nature of the study: The phenomenon of value co-creation has been studied before by many scholars, but not in this context or not by combining value expectations to this phenomenon. Hence, abductive approach helps in combining the previous knowledge in the field and discovering new at the same time. As well, this approach helps in re-interpreting and re-contextualizing the phenomena. (Kovacs & Spens 2005, 136-137)



**Figure 7. Systematic combining (Dubois & Gadde 2002, 555)**

One more reason why this approach was chosen lies behind the fact that this study aims to get deeper understanding about value co-creation. Abductive reasoning helps to focus in particularities of some specific situations (Kovacs & Spens 2005, 136). By this way it is possible to combine all the information during the research process until the best understanding is reached.

As Figure 7 represents, abductive process includes systematic combining of the case, framework, theory and empirical world. Researcher develops a preliminary framework after all the relevant theory in the field is collected. Preliminary framework consists of articulated preconceptions and the researcher is aiming to adjust this framework during the research process. The goal is to match all the findings based on theory and empirical fieldwork as well with deep analysis and interpretation. (Dubois & Gadde 2002, 555)

## 4.2 Data collection

Data collection in qualitative analysis should be planned carefully, since the most important part in data collection of a qualitative research is to collect high quality and extensive data. Besides, the goal should be to make thorough analysis about the studied phenomenon. (Eskola & Suoranta 2014, 18) Since the study is conducted as a case study, data collection can be done in several different ways or for example by combining two or more different data collection methods. According to Koskinen, Alasuutari and Peltonen (2005, 157-159), qualitative case study can be done by using some of the following data collection methods: documents, interviews, achieved sources, observing or physical objects. Yet, most common data collection for case study are either interviews, observation, questionnaires or literary sources (Tuomi & Sarajärvi 2009, 71; Koskinen et al. 2005, 157-159).

This study will use semi-structured theme interviews as a data collection method, because they make it possible to acquire extensive and intensive information from people who have participated value co-creation. (e.g. Hirsjärvi et al. 2003, 155; Marshall & Rossman 1994, 80-81; Tuomi & Sarajärvi 2009, 72-73) Interviews are the best data collection method for this research. They help in understanding the thoughts and behavior of people (Tuomi & Sarajärvi 2009, 72), which is needed in replying the research questions. Hence, the current customers of the case company will be used as informants, because they help to collect data of their own expectations as well as the most crucial activities needed in helping them to realize these expectations.

Interviews can be seen as a discussion or conversation between the interviewer and interviewee where it is possible to quickly get large amount of data. Hence, another reason why interviews were chosen was that they make it possible to observe the interviewee and to ask supplementary or clarifying questions, which is not possible in other methods. This makes it possible to get even more knowledge from informants and deeper understanding about the studied phenomenon. than any other methods. (Marshall & Rossman 1994, 80-81)

Interviews can be done through different ways, which makes it possible to classify them based on interviewing types. It is common to divide interviewing into three classes on depending about how the interview is conducted and how the researcher is preparing to the interview. Interviews can be structured, unstructured or semi-structured. Structured interview is done with completely pre-planned interview questions and the benefit is that it

usually produces short answers which help the data analysis. It is easier to conduct more questions to be answered in structured analysis, because provided answers are concise and short. Unstructured interviews are more open discussions with broad questions. Usually these interviews do not include direct questions, instead the interviewer starts to discuss about some particular theme with the interviewee. (Wilson 2010, 146-147)

This study will use semi-structured interviews which are somewhere between structured and unstructured interviews. This way is chosen in order to get short concise answers to some questions and broader answers and discussion to some other questions. Semi-structured interviews also fit best for this research because, there will be a greater flexibility and the interviewer can make sure the most important questions and themes are all covered. (Wilson 2010, 138; 147)

Semi-structured interviews are often conducted as theme interviews. Theme interviews are done so that the researcher has planned themes and questions for the interviewee, but can also make up additional ones in the interview situation. (Tuomi & Sarajärvi 2009, 75-76; Hirsjärvi et al. 2003, 195) According to Hirsjärvi and Hurme (2001, 47-48), theme interviews make it possible to bring out open discussion about the research topic and researcher has the right to switch the order of question to make smooth discussion. Hence, essential for a theme interview is that there are not too many pre-planned questions in order to have time for open discussion. Besides this, the researcher should carefully consider which themes are the most important ones in order to take the discussion on the right track.

Interview themes should be based on the framework of the study in order to meet the research aims (Tuomi & Sarajärvi 2009, 75). Hence, the themes in customer interviews are focusing on three most crucial areas for value co-creation: *customer's value expectations*, *value co-creation process* and *value realization*. Interview questions and themes are represented in the Appendix 1. The first theme will help in answering to the first sub research question. In addition, because the theoretical part brought up the importance of understanding the type of the expectation (e.g. Ojasalo 2001; Zeithaml 1991) as well as the zone of tolerance of the customer (Parasuraman et al. 1991; Zeithaml 1993) - the first theme of questions (Appendix 1) were aiming to reveal these because they affect to the value realization. For example, informants were asked "*what kind of value are you expecting from the service*" and "*what kind of value you would like to get in an ideal situation*" in order to reveal the levels of expected value. Researcher also added some questions about *how* customers see some specific expectation will be carried through in order to better reveal if

the customers had fuzzy, precise, implicit, explicit, unrealistic or realistic expectations (e.g. Ojasalo 2001).

The main activities needed for co-creation (*sub research question 2*) made the basis for the second theme. These questions (Appendix 1) were planned so that they helped in finding out what activities are needed and where they occur and what is needed in performing them (e.g. Aarikka-Stenroos & Jaakkola 2012; Grönroos & Voima 2013; Voima et al. 2010). Thirdly, the last questions belonging to the theme value realization, help to see which of the customers have been able to realize their expected value and in what level as well as identifying the factors that might cause the failure of value realization (e.g. Parasuraman 1997; Malshe & Friend 2017; Grönroos 2008).

A combination of face-to-face and distance interviews is used in order to gather as much data as possible and by observing non-verbal communication in some of the interviews as well. (Wilson 2010, 138; 147). All of these interviewing methods are flexible and make it possible to ask supplementary questions, which helps to gather more data about the research object. Distance interviews help to gather a larger sample size because they are conducted more fast and they require a minimal organization from both interviewer and informant. Some informants also prefer distance interviews because they take less time, which makes it more easy to agree on the interviews. (Wilson 2010, 138;143-144;147) Hence, distance interviews are used and they are conducted either through telephone or distance computer program called Zoom. Nevertheless, some of the interviews will be done face-to-face, because then the researcher can observe informants based on non-verbal communication as well and by this way acquire the benefit of two different interview methods (Wilson 2010, 143-144;147).

There were nine customer interviews conducted (Table 1), which all were audio-recorded. Researcher wrote notes during the interview to ensure the data storing. During the interview, interview questions were individuated. This means that interview questions encouraged informants to offer clarifications, examples, anecdotes and other details (Malshe & Friend 2017, 6), which helped in gathering more profound data. Mostly open-ended questions were used in the interviews because of the nature of semi-structured theme interviews (Tuomi & Sarajärvi 2009, 75-77). Open-ended questions helped in acquiring wider answers and specific details from informants that are beneficial for the research (Geer 2001, 1; 369 & McCracken 1988, 25).

The interviews typically lasted 40 minutes. However, face-to-face interviews lasted longer than distance or telephone interviews, approximately one hour. The chosen main themes were discussed during the interviews as well as the goal was to reveal even more precise activities and roles of the customer and software provider which are needed in order to realize customer expectations. To keep the interviews situation relaxed and in order to make the informant to feel more comfortable to answer to the questions, McCracken's (1988, 26-28) interview procedure was followed: interviews were a combination of formality and informality. Researcher created trust with chatter and informal questions, while at the same time acting professional "scientist".

**Table 1. Customer interviews**

<i>Customer</i>	<i>Length of co-operation with the service provider</i>	<i>Type of the interview</i>
<i>A</i>	2 years 4 months ( <i>since 1/2016</i> )	Zoom
<i>B</i>	2 years ( <i>since 4/2016</i> )	Telephone
<i>C</i>	1 year 7 months ( <i>since 9/2016</i> )	Telephone
<i>D</i>	1 year ( <i>since 4/2017</i> )	Zoom
<i>E</i>	2 years 5 months ( <i>since 12/2015</i> )	Face-to-face
<i>F</i>	8 months ( <i>since 8/2017</i> )	Telephone
<i>G</i>	1 year ( <i>since 5/2017</i> )	Face-to-face
<i>H</i>	1 year 10 months ( <i>since 6/2016</i> )	Face-to-Face
<i>I</i>	8 months ( <i>since 8/2017</i> )	Zoom

To accumulate a wide range of perspectives and experiences to value co-creation, the interviews were conducted for case company's customers in various industries. The interviews were made for people who guided the use of the software within their organization. Almost every informant was working in the sales or top management of their firm or they had a role of controlling the sales process within the organization. Besides this, most of them had longer than 5 years of history working within the sales of customer organization which was using the software provider's solution.

Interviews were conducted in April 2018. From all nine interviews, three was conducted as face-to-face, three as telephone and three as zoom interviews. Based on the information during the interviews, all of the sampled customers were engaged in co-creation process within the software service provider and history of cooperation varied between 8 months and 2 years 10 months (Table 1). Customers with different time length of customer ship were chosen in order to get a better sample and to see if this affects to the research result. Also, customers with less than 8 months' relationship were not chosen since they do not yet have so wide experience about provided service offering.

#### **4.5 Data analysis**

Chosen analysis method should be a good fit for the research and it should be comprehensive in order to achieve research aims. Besides, researcher should be able to interpret the collected data in order to conduct good qualitative research. (Hirsjärvi 2001, 207-208) In order to get the best way for data analysis, the collected data of this study was analyzed by combining different data analysis methods from different researchers (e.g. Strauss & Corbin 1990; Wilson 2010; Tuomi & Sarajärvi 2009; Hirsjärvi 2001; Fournier 1998). This was the best fit for this research, because chosen data analysis methods from these scholars are planned for qualitative study. In addition, they helped in comprehensive analysis of large amount of transcribed text data. By this way it was possible to interpret the data in separate parts and achieve reliable results for the research aims.

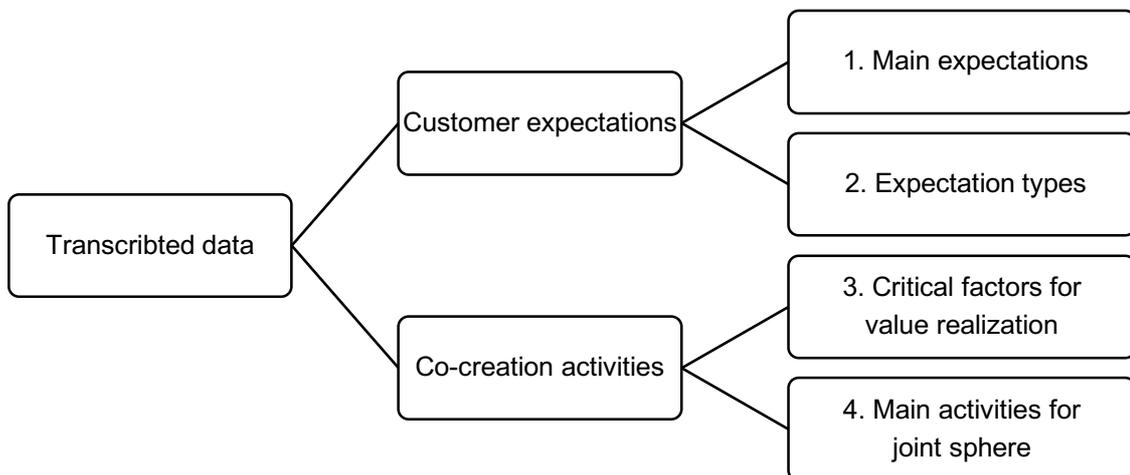
Analysis of the data was done in two separate programs, with Microsoft Word and QSR International's nVivo -program. Using these two programs helped to achieve better data interpretation (e.g. Malshe & Sohi 2009). Data analysis of transcribed text was done by interpreting and clarifying the data in order to meet the research aims, which was done based on two-level content data analysis (e.g. Tuomi & Sarajärvi 2009, 108-111; Straus & Corbin 1990, 57-96).

Tuomi and Sarajärvi (2009, 108-111) describe that qualitative content data analysis includes simplifying, interpreting and clustering the data. They see that data should be divided into different classes in order to interpret the results. Whereas, Strauss and Corbin (1990, 57-96) suggest that data analysis should be done by two-level method in some coding system to achieve the best interpretation. Coding methods are beneficial for qualitative research because they help in clustering big amounts of the data and discovering

categories. Wilson (2010, 255) as well suggests that data analysis includes data transcribing, category generating and finding themes and patterns.

When looking at the process of data analysis in this research, it started by summing up all the data from the recorded and partly written interviews (Wilson 2010, 255; Hirsjärvi & Hurme 2001, 137). Therefore, the data analysis process started by transcribing all the data from nine interviews in Microsoft Word Program, which resulted as 60 pages of text. After the content of collected written data was in Microsoft Word files, these files were downloaded into nVivo program. In nVivo, the data was divided to four different parts for the main data analysis (Figure 8). (Strauss & Corbin 1990; Wilson 2010; Tuomi & Sarajärvi 2009)

*Dividing the data in nVivo was done so that data was divided into separate datasets based on sub-research questions (e.g. Wilson 2010, 214; 255). As Figure 8 describes, transcribed data was firstly divided into two parts for the main analysis. Customer expectations and needed co-creation activities were analysed separately. These two datasets were also divided to smaller sections. Main expectations, expectations types, critical activities in customer sphere as well as main activities for the joint sphere were analysed separately and in this order.*



**Figure 8. Dividing data into separate datasets for the data analysis**

Firstly, customers' main expectations were analysed and after this divided into different expectation types. After this, the most critical factors for realizing these expectations were

recognized. Lastly, all the previous results helped in revealing the main activities needed in joint sphere of value co-creation.

*All the data from these separate datasets was analyzed in two-level process in nVivo program like Straus and Corbin (1990) as well with Hirsjärvi and Hurme (2008, 141) describe. In the nVivo program, it was possible to sort out the amount of data and to categorize data points based on their importance (Strauss & Corbin 1990, 61). Data analysis in nVivo started with open coding, which was used to categorize, conceptualize and examine the data (Strauss & Corbin 1990, 61). Open coding helped to clarify and organize quotations, because with the nVivo program it was possible to classify, give different meanings and place the importance for each part of the text (e.g. Hirsjärvi & Hurme 2008, 141).*

Goal of this first part of the data analysis in nVivo was to identify first order categories from the data. It was done by dividing data of the datasets into different categories based on most important identified factors (Hirsjärvi & Hurme 2008, 141; Straus & Corbin 1990, 65). Categories were modified all the time as the research proceeded and understanding become deeper. Hence, this part included a lot of impressionistic reading in order to identify all the most important issues from the data. (Fournier 1998, 347)

*Axial coding was done after main categories had been identified through open coding. The goal of the axial coding was to reveal patterns and connections among the founded categories in order to reveal the most important second-order themes. NVivo coding paradigm was used to make this possible. Researcher identified the most important relationships in the first order data categories as well as incidence of similar words and categories. (Strauss & Corbin 1990, 96-97; Fournier 1998, 347) Data was analysed this way as long as saturation point was met, which means that data did not reveal any new insights (Kananen 2011, 66-67).*

After this two-level content data analysis was done for all of the datasets, the goal was to combine this information. Combining the data was done in Microsoft Word program in order to draft a framework, which reveals all the most important results from the data like Strauss and Corbin (1990, 158) describe. Data from previously analysed datasets was connected by linking different conditions, consequences as well as events to each other. In addition, because of the abductive nature of the research, the researcher also combined theory to

the research findings during the data analysis process (Dubois & Gadde 2002, 555). The final resulted framework is presented in the chapter 6.

#### **4.6 Reliability and validity**

The value of every scientific research is based on reliability and validity of it (LeCompte & Goetz 1982, 31). In other words, the research should be reliable and collected data should provide a true picture of what has been studied. (McNeil & Chapman 2005, 9;10) In this study, the reliability was improved by utilizing theories for data collection and analysis methods from different researchers. This helped in achieving best data interpretations for this specific research (e.g. Hirsjärvi & Hurme 2008, 121-123; Tuomi & Sarajärvi 2009, 142-143). As well, each of the empirical and theoretical sources was carefully chosen and analysed in order to improve the reliability.

In qualitative research, reliability and accuracy of the research are mainly evaluated based on verifications about if the research has been conducted in a right way (Hirsjärvi & Hurme 2001, 25). Therefore, the research has been following coherent structure and detailed reasoning. Besides, the researchers should be able to thoroughly demonstrate their findings based on reliable and valid conclusions (LeCompte & Goetz 1982, 31). Because of this, the selection of different methods and processes of data analysis have been discussed in a detailed level to verify their suitability for this research (Strauss & Corbin 1990, 258). In addition, every chosen method as well as used theoretical and empirical data has been inside out described in this paper.

However, it must be taken into account that the study reliability might have been affected based on the experience and perceptions of the researcher (Straus & Corbin 1996, 311). Researcher aimed to objective behavior during the research process. Yet, there is a risk of shaping up the research based on the researcher's preferences. (Tuomi & Sarajärvi 2009, 134-136) As well, the use of computer program was an effective way of data analysis. Yet, it might have stifled creativity, mechanized the analytic process or in even lead to the situation of technological determinism. (Strauss & Corbin 1996, 310) Therefore, this situation was tried to be avoided by using non-computer analysis alongside with the nVivo program.

One of the ways to evaluate reliability is to evaluate data collection and data itself from the research, because nature of the data is affecting to the reliability (LeCompte and Goetz

1982, 31). For example, the faster the data is transcribed and analyzed - the more reliable the research is (Hirsjärvi & Hurme 2008, 184). Hence, researcher transcribed all the data from interviews during the same day they were conducted and all the interviews were conducted within two weeks. As well, all the interviews were well pre-planned and carefully conducted, in order to have quality data. (Hirsjärvi & Hurme 2008, 184-185) Of course, by taking the nature of semi structured theme interviews into account.

## 5. ANALYSIS AND FINDINGS

This chapter analyses and discusses the main findings from the empirical part of the study and connects these findings to theory. Results are presented in two different parts based on the execution of the data analysis. Nevertheless, summary of main findings is presented first to give an understanding of the most important empirical findings. Chapter six combines all the empirical and previous theoretical findings as a framework, which can be used in realizing customer value expectations.

### 5.1 Summary of the main findings

Findings resulted identifying the main and most common types of value expectations among current customers of software as a service company as well as their connection to customer value realization. *Main customer expectations* among the current customers are *more sales, new prospects, time savings and more knowledge*. It was noticed that customer expectations had different characteristics and identified types of them were *realistic, unrealistic, precise, implicit, fuzzy and explicit* and it was noticed that customers might have multiple types of expectations at the same time. These expectation types were reflected to value realization and it was found out that only *customers with realistic, precise or explicit characteristic in their expectations can realize the value they are expecting*. Nevertheless, customers need to have *realistic and precise expectations characteristics in order to meet their desired expectation level*.

The study revealed five critical factors in customer sphere which are needed in order to realize the value expectations: *clear usage process, goal oriented usage, implementation, service commitment and service know-how*. Based on these five critical factors, *there was eight different joint value co-creation activities suggested for value co-creation process in order to realize customer value expectations*:

1. *Value expectation assessment and management*
2. *Business and workflow identification*
3. *Communicating the service promise*
4. *Goal setting and measurement*

5. *Planning the usage process*
6. *Implementation and follow-ups*
7. *Usage process control and reporting*
8. *Trainings and support*

After these findings, all the results were combined together as framework, which is presented in the chapter 6. The findings revealed two important issues which should be considered in further value co-creation in software as a service industry in order to realize current customers' value expectations. Firstly, *customers' value expectations have an effect to how the service providers should manage value co-creation and these value expectations are change during time*. Therefore, customer expectation assessment and management should be seen as an important part of value co-creation. As well, the results suggest that the roles in co-creation should be planned to support the current stage of customer expectations: co-creation should be *affirming* for the customers "who know what they want", whereas *assertive* for the customers whose expectations are not as clear.

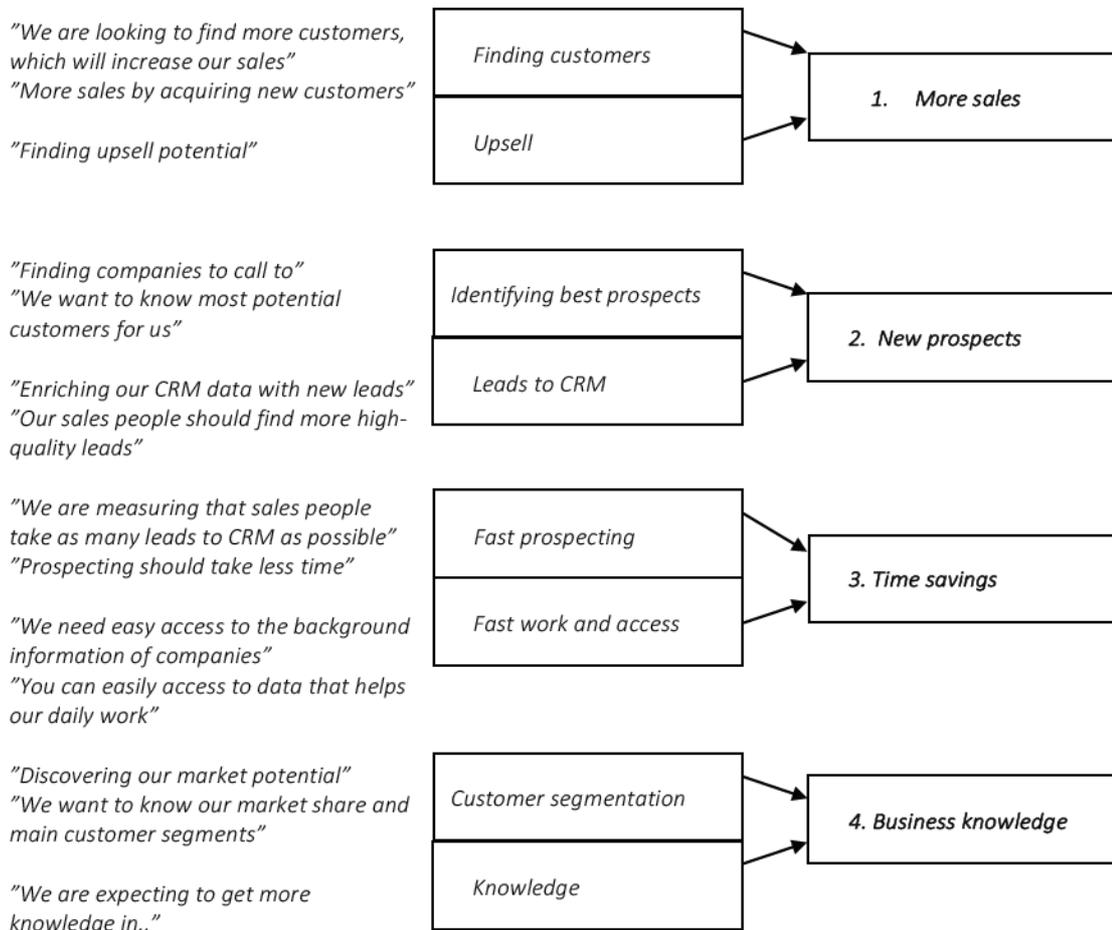
Second finding underlines the fact that *value co-creation should be seen as a continuous two-level process, which takes into account both management and the user level*. The pivotal value-in-use is experienced by the customer, whereas the management is evaluating the service after this. Only after value-in-use and value evaluation it can be seen in what level value co-creation occurs. Hence, value co-creation and customer expectation management should be seen as a combined two-level process.

## **5.2 Customer value expectations**

As value co-creation starts by understanding customers and what they want in the customer sphere (e.g. Payne et al. 2007), the expectations of the current customers were first analysed in empirical part of the study. Hence, this chapter presents the results regarding value expectations of the current customers of the software provider. The research result revealed the most common value expectations for the customers (Figure 9) as well as main types of them (Appendix 2), which helped in understanding the effect of customer value expectations to value realization (Table 2). This chapter discusses first the main customer expectations and after this the types of them as well as their effect to value realization.

### 5.2.1 Main customer expectations

Since the service provider needs to know its current customers value expectations in order to realize value for its customers (e.g. Ojasalo 2001; Berry & Zeithaml 1991), empirical findings identified the main expectations of the current customers of Finnish software provider (Figure 9). Results revealed that current customers of the software company are having different value expectations depending on the nature of their own business operations. Yet, despite the fact that expectations are strongly dependent on the personal needs of the customer (e.g. Zeithaml 1993), there was four exceptions identified which clearly seemed to be the most common ones.



**Figure 9. Customer expectations of the current customers of the Finnish software company**

These four most common expectations were expectations about: *more sales, new prospects, time savings* and *more business knowledge* (Figure 9). Expectations are presented in the order of their occurrence, which means that more sales were the most common customer expectation. Customers were most likely looking to find more customers or potential upsell opportunities, which resulted as the main theme about overall expecting more sales. All of the interviewed customers either directly or indirectly mentioned that they are expecting for more sales.

Other most common expectation was that customers were looking to find new prospects: either identifying the best prospects for them or to get leads to their sales CRM system. This expectation come up in eight of the interviews. Time savings was the third most common expectation. Customers were looking to save time in some of their sales processes, for example in easily accessing to different data they need. As well, customers were expecting that their sales team would be more efficient in terms of finding prospects or other beneficial company information as fast as possible.

Lastly, companies were expecting more business knowledge. This meant finding some other business relevant information about companies, which will benefit them. For example, two of the customers were looking to do customer segmentation and four of the customers hoped to gain more knowledge in some issues that were business relevant in their current situation.

### **5.2.2 Expectation types and their effect to value realization**

Types of the customer expectations were evaluated because they are a prerequisite in planning the best ways to conduct value for the customers (e.g. Zeithaml et al. 1991; Hsieh & Yuan 2010; Woodruff 1997). Hence, it was analyzed if they are affecting the value realization or co-creation process. Appendix 2 summarizes customers' answers and their analysis when they were asked about their expectations. In Appendix 2, nVivo code represents the expectation of each customer (abridged version), first order category the description about each expectation and second order theme the recognized expectation type. Yet, it is good to remember that customers might have multiple expectations, for example they might expect more sales as well as more business knowledge, and Appendix 2 only summarizes the expectations each of the customer saw as the most important.

Because customer value realization occurs through customers' experience and gained service benefits (e.g. Grönroos 2008), all the informants were asked what kind of benefits they had gained with the service. As well, since the customers compare their expected benefits to what value has occurred and in what level (e.g. Chen & Dubinsky, 2003; Parasuraman et al. 1991) - each informant was asked on their adequate and desired level expectations and if their expectations have been met (Appendix 1).

Interviews revealed that current customers of the case company had most likely multiple expectation characteristics in their expectations, which supports the theory from Ojasalo (2001). These value expectations of the current customers were compared to value realization and as well as to the theory from Parasuraman (1991) about desired and adequate service level (Figure 3). Results revealed that from all the nine informants, seven felt that they had been able to realize value they had expected to receive from the service. Table 2 combines customers' expectation types and the information if the customer met their desired or adequate expectation level. As well, it takes a stand if the customer mentioned they want to gain more benefits with the service.

*Even though many companies had met their adequate level of expectations, not all were able to reach the desired expectation level. Another surprising fact was that the zone of tolerance of the customers had been changing during the customer relationship with the software provider. Even the customers felt they had gained desired expectations at some point, now they felt that there is even more they expect at this specific time (Customers B and E). This supports the previous theories about the situational nature of customer expectations (e.g. Duchessi 2001; Peppers & Rogers 2004).*

Empirical findings identified that *customers who were able to realize value they expected had realistic, explicit and precise characteristics in their expectations*, which supports the theory from Ojasalo (2001). Whereas, companies lacking these had more difficulties in value realization. However, *even though customer would have all of these desired expectation types, not all of them were be able to realize their expectations.*

Theory from Ojasalo (2001) was used in evaluating the main expectations types. Precise expectations could be recognized if the customer knew exactly what they want to achieve with the service. Whereas, customers with fuzzy expectations gave uncertain and vague answers when they were asked what value they expect (Appendix 2). The difference between realistic and unrealistic expectations was evaluated by comparing each

expectation to what the service provider can offer with their software. Realistic expectations were something that was realistically done whereas unrealistic expectations were something that cannot be done with the software usage. Explicit expectations were recognized if the customer was paying conscious attention to if these expectations will be met. Implicit expectations were recognized if the customer had noticed that there is something more they want to achieve with the service that they did not have previously paid attention to. (Ojasalo 2001; Voima et al. 2010)

**Table 2. Customer expectations and value realization**

<b>Customer</b>	<b>Expectation type</b>	<b>Value realized</b>	<b>Desired level</b>	<b>Adequate level</b>	<b>Wants more benefits</b>
<b>A</b>	<i>Realistic, precise explicit</i>	x	x	x	x
<b>B</b>	<i>Realistic, precise explicit, implicit</i>	x	x	x	x
<b>C</b>	<i>Realistic, precise explicit</i>	x	x	x	
<b>D</b>	<i>Realistic, precise, explicit, implicit, fuzzy</i>	x		x	x
<b>E</b>	<i>Realistic, precise, explicit, implicit, fuzzy</i>	x	x	x	x
<b>F</b>	<i>Realistic, precise, explicit</i>	x		x	x
<b>G</b>	<i>Fuzzy, unrealistic</i>				x
<b>H</b>	<i>Fuzzy</i>				x
<b>I</b>	<i>Realistic, precise</i>	x		x	x

Analysis revealed that the more realistic, explicit and precise the expectation was, the more likely the customer knew this expectation is going to be met and was able to realize expectations. For example, Customer A with realistic, precise and explicit expectations had very clear expectations:

*“We are expecting to gain new prospects, customers and time savings for our sales team. Our sales people use it daily in their operations to achieve this. They use the service so that...”*

Whereas, in the situations of fuzzy expectations with four informants, customers had some valuing ideas about something they might need or need more, but they were not certain about what the change should be or what they exactly need (Ojasalo 2001). None of the customer was able to realize fuzzy expectations. Yet, if the customer had both fuzzy and precise expectations, it was possible to reach the precise ones. However, those customers felt that there was still more they want to gain with the service.

As we can see from the Table 2, customer expectations are more likely to be realized if they are realistic, precise and explicit. Another issue that appears from both empirical and theoretical results is that *expectations might change during the time*. Two of long-term customers' (approx. 2-year relationship) expectations have changed during the cooperation with the service provider (e.g. Duchessi 2001). They both saw that they have been extremely satisfied. As well, these customers' expected value has been realized even at the desired level. Yet, they had some implicit expectations before, which had turn into explicit and fuzzy. They noticed that there was something they wanted to gain more, but now they were not sure how to reach the new expectations (Ojasalo 2001):

*“This really has made our work efficient. We have found at least 900 customers with this service during the first one and a half year of usage! Still, now the situation is way different as it was in the beginning: we have grown because of our operations and because of this, we cannot use the service in the same way. We need to figure out how this can be as efficient as it was in the beginning...” - Customer B*

*“We need to get more efficient usage. We have noticed that when sales people start working with use, they use this service more than they do after a year or even more. We do not know what we should do to make them efficient with this after that time.” - Customer E*

As customer B and E describe, we can see that customer expectations are changing over time during the cooperation with the software provider. This change is reshaping the zone of tolerance (e.g. Parasuraman et al. 1991), because the expectations affect to the desired

and adequate level of the service. Hence, as E and B mention, “*we do not know what we should do now...*” and “*we have to figure this out...*”, it is seen that that customers might not be able to realize the value they expect or turn their expectations back to only realistic and precise unless they get help from the service provider.

Surprising fact was that even though seven companies have been able to realize some customer value from the service, all except one, feel that there is something more they could gain from the service. This might have to do with the fact that only four of the customers were able to realize their expected customer value on desired level and two of these were the ones whose expectations had reshaped during the last months. Based on this, we can see that customers only feel that their expectations are met if the service provider can reach them in the desired level or even would meet the unanticipated value (Butz & Goodstein 1996). Customer C, whose expected value was and still is realized in desired level, said:

*“This service has truly given us what we have expected. I don’t even know what more to expect!”*

This informant could also easily list all the things they wanted to receive with the service and they had a clear process how these expectations are met. This was very different when compared to customers whose expectations were not realized. These customers had difficulties when they were asked that what they were expecting from the service. For example, the customer G with fuzzy expectations, replied with more uncertainty to the question about the expectations:

*“I guess firstly we are looking for new customers in a new market... but now...”*

Common thing between the companies with fuzzy expectations was that they saw the benefits of the service and the ideal picture what the service would or might bring for them, but the picture about how to reach these expectations is fuzzy. These customers clearly had more problems with either their internal processes when implementing the service to their use or they’d come across some organizational change or situation, which had change the usage:

*“Lauri loved this service. He was always helping as well as inspiring others to use this at one of our offices. When he left, people start to use less... We should find a new driver for this” -Customer E.*

*“It is totally our problem, because we have not used this so much. I think” -Customer G*

In conclusion, the better and clear picture customers have about their expectations, the more likely they gain benefits with it. As Voima, Heinonen and Stradvik (2010) describe the value dimensions that service providers need to understand (*what, who, where, when, how*). As well, the customers themselves need to understand that *what they expect* in order to make it possible to meet these expectations. *Later chapters will give recommendations on how service providers can help customer to define expectations and manage them.*

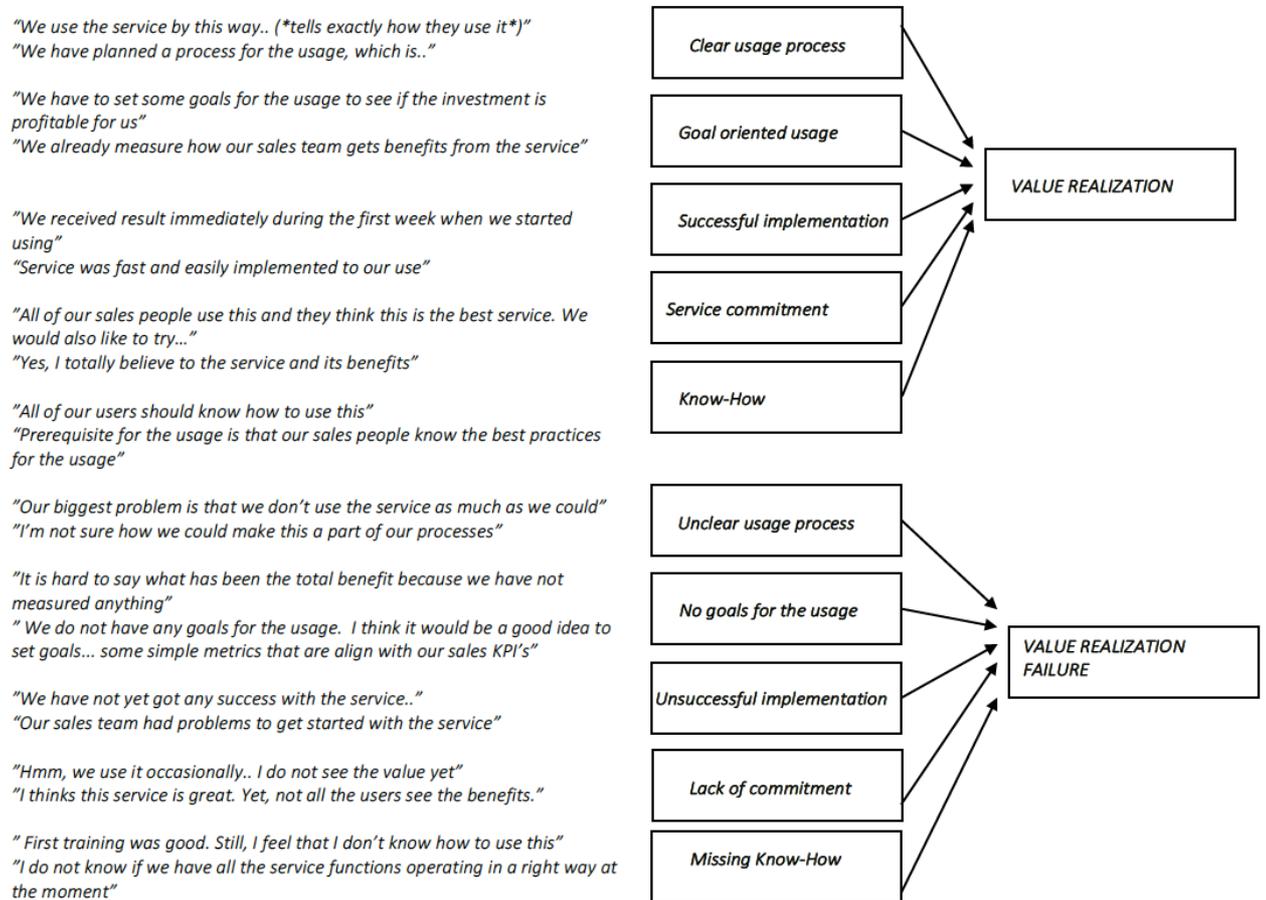
### **5.3 Value co-creation**

The research revealed *most critical factors* that are needed in order to realize the expectations of the current customers (Figure 8). Most of these critical factors are occurring in customer sphere (Grönroos & Voima 2013), but they can be affected through joint sphere. It was noticed that all of the customers need support from the service provider in order to realize the expectations, which brings out the importance of value co-creation in the context of software as a service industry. Therefore, based on identified critical factors, there were eight activities recognized which make it possible for service providers to support the value realization of their current customers in the joint sphere of value co-creation.

#### **5.3.1 Critical factors in value realization**

Since customers are the ones who experience value-in-use, we need to understand how they create value in their own sphere. Only by this way, it is possible to find the best value co-creation activities for the joint sphere where the service provide can help customer in value realization (e.g. Grönroos & Voima 2013). Hence, the empirical part of the study took a closer look to the critical factors of value realization in the customer sphere in order to recognize the most emerging value co-creation activities needed to support value-in-use experience (e.g. Vargo & Lusch 2004).

When comparing the difference between the customers who had been able to realize value and who had not (Table 2), empirical findings identified factors which seem to have a straight correlation to the ability to realize the expected customer values (Figure 10). Customer interviews revealed that *there are factors that either have a positive or negative effect to customers' ability to expectation realization and the level of it.* First of all, customers with *clear usage process* and *goal oriented usage* were the ones who received most value from the software providers offering. Whereas, customers lacking these has difficulties in value realization.



**Figure 10: Critical factors for value realization in customer sphere**

As well, *successful implementation* seemed to be correlating with the level of value realization: faster the customer implemented the service and started to use it, the more likely value was realized. Interviews revealed that this occurs because customers who successfully implement the software, will faster achieve results with it. Hence, customers

should start using the service as soon as they start cooperation with the provider. This also brings out the importance of the first activities in value co-creation (e.g. Aarikka-Stenroos & Jaakkola 2012).

Thirdly, both empirical and theoretical findings highlight customer commitment (e.g. Gounaris 2005) which is needed for the service to be used. Empirical data identified that *lack of commitment* might cause the situation where value cannot be realized. Some of the customers were more indifferent regarding the usage of the software or even mentioned having problems with the commitment. Besides, there was a new finding regarding the fact that *customer commitment might occur in two levels: in management or user level*. In other words, even though the management would be committed to the service, users might not and vice versa. All of the companies with lack of commitment from either management or user side had difficulties in realizing value.

With all the previously mentioned, service *know-how* can be seen as an emerging factor as well. In other words, users need to know-how to use the service in order to gain results with it. This, as well as other critical factors, support the theoretical findings (e.g. Voima et al. 2010) which emphasize five value dimensions: Customers who know *what, how, where, when* and by *who* the value is created are more likely to realize their expectations.

This chapter will now more profoundly analyze and discuss these five critical factors. Nevertheless, it is good to remember that with all these five, *also the value expectations of current customers have to have either realistic, precise or explicit characteristics in order to make the customer value realization possible*, which means that value expectation assessment and management is a critical factor as well. Yet, value expectations and their effect to value realization were discussed in the last chapter what for they will be left out from this analysis and discussion.

#### Clear usage process

Empirical findings highlight the importance of clear usage process in the customer sphere. It was noticed that those *customers with clear usage process or “workflow” with the software were able to realize the customer value in a higher level* and the ones who lacked the usage process, had difficulties in value realization. Still, challenging fact here is that since the customer’s service usage is happening in the customer sphere (e.g. Payne et al. 2007;

Grönroos & Voima 2012) and service provider cannot be there to assist the usage all the time.

All of the informants were asked about the usage process they had with the software. Customers should know that how they use the software, who uses it and when in order to have a clear usage process for value realization (Voima et al. 2010). Hence, questions about how and when they use the service as well as who are the main users were asked. It was noticed that usually the “main users” were people from the sales team. Only in two of the organizations, Customers H and G, top management also used the service. These companies were smaller with their organization structure and they did not have as many sales people, which resulted as more sales effort from the top management.

Empirical results were surprisingly coherent: *all of the customers who had met the desired expectation level (Table 2), also had a clear and systematic process for the usage.* As for customers with unclear or unstructured usage process were not able to get as much from the service as they wanted. Here are two opposite examples when customers were asked about how they use the service:

*“Every seven people in our sales team use the service with their own computers. All of them use it so that they log in almost every day and look for...”* -Customer A

*“We have two users for the service, but the other user is more active and the other one rarely uses the service. Occasionally we do some searches... it depends on the time we have...”* -Customer G

We can see from the answers, Customer A has more structured usage process than Customer G does. When A was asked about how they use the service, the answer was very precise and there was clear workflow recognized. Whereas, Customer G was very uncertain about their usage process. As an end result, Customer A was able to realize customer value whereas G was not.

As Grönroos and Voima (2013) discuss about personalizing the service offering to each individual - empirical findings revealed the differences between software users as well. Empirical results identified that the *usage process should be created separately depending on each customer’s business and the person who is using the service.* It was noticed that

some of the companies might have a clear vision of who are the main users for the software, but not all of the users have a clear usage process or goal oriented usage even though some of the users within the same company might have. This was probably caused by the fact that the users might be having different routines and roles which both affect to the usage process. Hence, *when thinking about supporting each user - there should be individualized process for each.*

Lack of the clear usage process resulted as a low usage level of the service according to empirical findings. *It was seen that if the customers do not have a clear usage process in mind, they have difficulties in figuring out how to start the usage.* As well, they might be unmotivated to use the service because there is a lack of understanding (e.g. Butz & Goodstein 1996). This causes a critical situation for value realization, because the value of the service can only be realized through the usage (e.g. Grönroos & Voima 2013; Vargo & Lusch 2004). As an example, we could take a look to Customer H, who clearly saw the benefits of the service:

*“Yes we can definitely see the benefits! This service will bring us X € savings if we even get one customer with this, which is way more than we’ve invested on the service. Still, it is our fault that we have not used this... It just somehow feels we haven’t found the right way for us for the usage...”* -Customer H

Because *there was not any clear usage process for Customer H about how they use the service, they had problems in implementing the service to their processes.* Still, it was very surprising that customer H felt that this is totally their fault and did not see that the service provider had done anything wrong. Moreover, there were situations where the customer had a process for the usage but then people within the organization changed. In these situations, *the usage process had to be built again to meet the user’s routines.*

### Successful implementation

Interviews revealed the power of the successful start with the service. *Customers who starts to use the service immediately and successfully implemented it to their processes, were able to realize the value faster.* All of the customers who had been using the service immediately after the first weeks of cooperation, more easily gained some benefits with the service. These customers were able to realize their value and more likely continued the

usage after this. For example, one of the customers who reached desired expectation level said:

*"We started to use the service immediately when we got credentials! Also we noticed the benefits right away because this made our work a lot easier and now we have gained a lot benefits!" - Customer D*

Whereas the *customers who said they did not start using the service in the beginning had more problems in realizing value they expected*. Usually this was due to the lack of usage, but these customers had *two different kinds of situations*. There were situations where *some of the users started to use the service, whereas some of the users did not* (e.g. Customer A and F). In these cases, the top management of the companies were getting conflicting messages from the users about the benefits and because of this was not sure if they actually gain benefits from the service or not. Yet, both of the customers had some users who had gain great benefits since from the very beginning of the usage, which made the organization to start changing the situation so that they started to activate other users as well.

Another *reason for slow start with the usage were unclear usage process and goals*. One of the customers who had struggled to getting start with the service, was not sure how to begin with it. *Management saw the benefits, but was not sure on who are the main users and how they will start the usage*. Because of this, salespeople had problems in adapting the service into practice in their daily work *because no one had the "responsibility" to use the service*. On this account, this caused a situation where the real beginning of the usage was pushed forward with a few months.

### Goal oriented usage

In order to realize value expectations, *customers need to have goal oriented usage*. As Aarikka-Stenroos and Jaakkola (2012) brought up the importance of identifying the goals for exchange, also empirical findings supported the fact that each customer should plan goals for the usage of the service. Agreeing on the goals should as well be quite simple, because they can be based on customers' perception on what they want to achieve with the service (e.g. Zeithaml et al. 1990).

Importance of goal oriented usage came up many times in the empirical part of the study. Still, surprising fact was that even though the goals are important, *many of the customers were lacking goal oriented usage and sufficient goal measurement systems*. Most of the customers had some goals hidden in their mind, but there was no process where the customer and the service provider go through these goals and specify them. However, this would be important because empirical results revealed that *specifying goals for the usage have a correlation to realizing customer value expectations*.

There was a clear difference between the companies who had some goals for the usage and who did not. Most of the *companies who had some goal setting and who followed these goals regarding the service usage were able to gain more benefits with the service than the others*. In addition, *these companies knew more specifically what is needed to meet these goals*. As well, they also knew when they need more support from the service provider if the results were not as good. In conclusion, it seems that the *goal setting is affecting to customers' commitment towards the service and helps them to evaluate if they have met the adequate or desired level of their expectations*:

*"We are measuring the usage so we can see the benefits we have gained as well as report these results to the top management when they re-consider the contract with the service provider" - Customer A*

*"We measure how many new prospects our sales people find to our CRM to see how much the service is used and what kind of benefits there has been since we can see how many of these brought prospects have been closed as sales" -Customer D*

Surprising was that of all nine informants, only three of the customers were measuring some goals for the usage of the service with a clear system they had created themselves. These companies had set some goals that they measured with some system, like for example: number of prospects taken into CRM, sales in euros or time savings in the sales work. It was seen that the most common measuring technique used was a CRM system, which reveals the fact *that companies measuring sales activities were the ones who also had created a process for measuring results*. This verifies the theory from Duchessi (2001), who stated that companies are interested in measuring business critical factors. Also, two other companies were measuring sales activities in some level and even though they did not have

any specific “goals” for the usage of the service, they still reflected to their sales goals when they were asked that what they see as their goals for the service usage.

Nevertheless, there was a notion done that overall four other companies had something they were measuring in terms of use but did not report this to anywhere. Yet their *goals for the service usage were not as clear, since they did not have any appointed goals they look for receive with the service*. When these customers were asked their opinion about if there should be some goal setting and measurement in the usage of the service, they all saw it as a good idea. Besides, one of the customers even brought this up without even asking:

*“I think we should set and start to measure some simple goals for the usage which are in line with our business objectives and KPI’s. Then it is easier to see who are using the service and what is the total benefit for us... As well as then our usage would be more goal oriented, which might endorse the usage and gained benefits” - Customer F*

As seen from the comment of Customer F: *current customers are interested in measuring some goals reflecting their key performance indicators (or business critical factors). They reveal the profitability of software as a service investment as well as help them to guide service usage in the line with their business operations*. Overall from all of the nine informants, all of the customers saw that there should be some *clear goals for the usage*. They also saw that it would be good to measure these goals because it would help in measuring the profitability of the service investment they have made. Since, all the customers were interested in gaining financial benefits or some other business benefits with the service.

In conclusion, it was noticed that most of these *goals* that companies had individually placed for themselves *were align with their sales goals*. As well, it was noticed that *most common goals reflected somehow the recognized most common value expectations*. For example, one of the customers is measuring both number of prospects they have gained from the service as well as amount of sales, which both were the most common customer expectations. Hence, this study proposes that *every company should have some appointed goals for the software usage which are reflecting to customer expectations and other business related goals the customer has*.

### Service know-how

Service know-how is crucial in order for customers to experience value-in-use, because customers are independently using the service (e.g. Gummerus 2013). Empirical part of the study also revealed that *if the customers are not having the know-how about how to use the service - they cannot realize any value*. Customer interviews proved that there are differences regarding how good the customer know-how is and how much customers need help with the service. For example, some of the customers are expecting to get more customer support and trainings whereas some others are satisfied with less. As well with this, there was also differences recognized regarding what kind of help are the customers needing and in what kind of situation.

At the moment, the case company arranges customer implementation for its customers which is held as either face-to-face or distance meeting with the customer. Also, additional trainings for customers are arranged once a year as well as provider offers web material and online customer support for its customers. With these, providers account managers stay in contact via a phone or email with customers every now and then and ask how they are doing with the service. Hence, all of the customers where asked about how they saw the implementation process, trainings and these other elements in order to reveal if there is something that needs to be done differently to ensure customer know-how.

Every informant saw the implementation and trainings well organized and were most likely happy with them. Also some of them pointed out that the customer service is excellent. Yet, when taking a closer look to how implementation and trainings are conducted in each of the customer organizations and how the customers felt afterwards - there were two major issues recognized. First of all, *many of the customers mentioned later about the importance of personalized trainings and implementation:*

*“One thing I’ve noticed is that some of the trainings are held in very general level. I mean that we are not so interested how some other companies use the service if it is not connected to our operations in any way. We are only interested about know how this service can benefit our industry and our business” - Customer A*

*“Our sales people are not interested about anything else expect how this service will actually benefit their daily work. The*

*more concrete examples about how they can get most benefit are the best way to make them use the service! ” -Customer F*

As customer F mentioned, customers also expect training on a personal level for every user. Therefore, this supports the earlier findings about personalized service customization and trainings (e.g. Tuli et al. 2007). *In order to make customers to use the service, the know-how must be shared in a way which is well personalized to each of the software users.* Besides, a prerequisite for value realization is to understand this specific customers' daily operations as Voima, Heinonen and Strandvik (2010) also brought up in their research.

Interviews revealed that *many of the customers expect the service provider to know their operations and industry.* This was raised by many informants and customers are expecting this since they in order to plan the trainings and implementation well personalized. Because of this, informants were asked that if they are willing to share information about their business, industry and goals for the service provider in order to help them plan the trainings to provide the best know-how. Answers were very coherent: all of the informants who was asked this question were more than willing to do that.

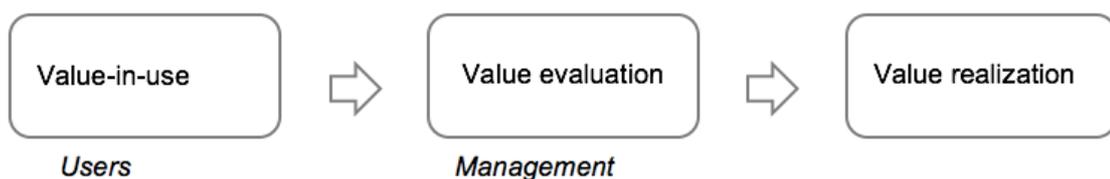
Another major issue the customer interviews emphasized was that customer *know-how will change overtime.* Especially in the situations where *new people* join the organization, the role of the user changes or if the operations of the organization start to focus on different area. As well, it was noticed that some of the *customers need additional trainings* just to encourage the people to use the service. Many of the customers did not even realize or expect that they might need help with the service after implementation, but interviews revealed that customers do need tips, best practices, additional trainings or some other contact from the software provider to keep up the interest to develop and maintain the know-how towards the service. For example, many of the customers mentioned that at the moment they have a need for additional trainings because of some previously mentioned reasons.

### Service commitment

Perhaps the most critical issue in value co-creation is to earn commitment from the customer organization in order to build long-term relationships (e.g. Gounaris 2005). As Verhoef (2003) defines commitment as customers' positive emotional state towards the firm and its services, the empirical results revealed that service commitment occurs in two

different levels. Two recognized levels are *user and management level service commitment*, which are both needed in order to realize the customer value in a long-term. In this context, when we discuss about service commitment, it means the intentions and willingness of the customer to use the service and continue the usage based on the fact that they believe to its benefits.

User and management level commitment are both needed, because it was noticed in the interviews that *management makes the evaluation about value realization for the firm, whereas users are the ones who experience the value-in-use* (Figure 11). Empirical findings revealed that management is not involved in the service usage, but they are the decision makers when it comes to service benefits and value evaluation. Users on the other hand are the ones who use the service based on what they have been trained for and what they see as important for their own work. As well, the *top managers are interested in affecting how their employees use the service in order to as efficient business hours as possible*. This process is illustrated in the Figure 11, where users experience the value-in-use and management does the value evaluation. Only after this it is decided that in which level the value is realized.



**Figure 11. Value realization in customer sphere**

When informants were asked if they are satisfied with the service, half of them made a notion that they are happy with the service, but they do not see that they are getting as much benefit from the service as they could in the ideal situation. In almost every of these situations, the informant saw this as their internal fault and was not complaining the service provider for this. In these situations, it was noticed that there was either management or user level commitment problem:

*“We absolutely see the potential of the service, but we are not satisfied with our own use of it”. - Customer H*

*“This could bring us a lot benefits, but I know that the usage level of the service is not what I would want it to be. I would say that it is more of our problem - not the service providers. Some of the users just do not yet see how this benefits their own work...”*  
Customer F

These are examples of *user level service commitment problem*. In both of the cases with customer H and F, not all the users were committed to use the service. This resulted as a feeling for the informants that not all the potential value of the service is used, because only some of the users did use the service. Therefore, most likely the users who used the service believed to its benefits whereas the ones who did not use were lacking commitment. Of course it is good to remember that low usage level could also be caused by lack of know-how or something else. Nevertheless, user level commitment is crucial since they are the ones using the service.

*Management level commitment problem* is a situation where the management is not committed to the use of the service. In these situations, management might not have the commitment because they do not believe to the service and its benefits themselves. The other situation which might occur is where the management is lacking commitment because the users aren't satisfied. Hence, empirical data identified that the *commitment is needed in both of the levels* because they have either a positive or negative impact to each other: if the users are not committed, they'll discuss with the management and management commitment drops. Whereas, if the management does not believe to the service, they seemed to be resistant to encourage the users.

As an example, there occurred a management level commitment problem in the case of Customer H. Customer H said they see benefits, but yet did not add so much effort in making the service part of their processes. Customer H confessed that the problem lies in the fact that they just have not add enough managerial effort to the process that they would start implementing the service to their use. Yet, when Customer H was asked about the benefits of the service, the answer of the informant reflected to the fact that this customer was not believing to the service benefits for their own business.

In the case of customer F, the users were not committed to the service. Management believes to the benefits and wants the service to be in the use of every sales people, but

not all of the sales people see the benefits. Hence, the users were not all using the service. This caused the situation where the management of this company also started to question if the service brings enough benefits. When informant of this company was asked that how could the service provider raise the user level commitment, informant replied the following:

*“Our sales people have very strong routines they have get used to, which makes them resistant for the usage of new services. Yet, I already saw that whenever service provider's account manager comes here to tell about the service benefits, the salespeople who are present get more excited about the service. Still, the trainings should be planned to be even more inspiring. I also think that the key to get people use this service is to emphasize the fact that how each specific sales people get benefits by using the service.” -Customer F*

This comment brings out the fact that the *users are needing different support from the service provider than the management is: they need inspirational and good trainings, which make them see the benefits.* As well, it raises out the importance of personalized trainings as mentioned before, because each user has different needs which should be served.

*Management is more interested about the strategic planning and the end results of the service usage.* This is because they control the process and evaluate in what level their expectations have been realized based on the value-in-use for the users. Yet, it is good to remember that the *value-in-use experienced by the users should be meeting the expectations of the management.* For example, if we think on the situation where the management is looking for the users to gain more sales with the service. Then, if the users get more sales with the service, the management will be more committed and the more value will be realized. Whereas, management won't be more committed if the users are committed to the service, but they do not gain any results with it.

Lastly, *commitment and success of the users makes it easier to prove the actual value of the service.* As well, it was identified in the customer interviews that both users and management were committed to the software in those customer companies who had been able to realize expected customer value. In those companies the management had realistic expectations about what they want to gain with the service as well as the users has a higher user activity, which tells about the commitment. Yet, it necessary does not have to be the

situation where all of the users use the service. In some of the organizations management was satisfied if even some of them did.

### 5.3.2 Main joint activities

This chapter presents main joint activities for realizing customer expectations. There are eight main value co-creation activities recognized based on the most critical factors for value realization as well as previous theories. Even though some of the critical factors are mostly occurring inside the customer sphere, this chapter gives recommendations for service providers that how to guide and support these critical factor in the joint sphere of value creation, because only in this sphere the service provider can act as a value co-creator (e.g. Grönroos & Voima 2013). Proposed activities for joint sphere in value co-creation are: *value expectation assessment and management, business and workflow identification, communication the service promise, goal setting and measurement, planning the usage process, implementation and follow-ups, usage process control and reporting as well as trainings and support.*

Before introducing the activities, there will be one notable recommendation to make which concerns every activity. Since the empirical part of the study revealed the importance of both user and management level commitment for value realization, *all of the recommended activities take a stand on if they are conducted on a user or management level or if they need to be done in both of the levels.* By this way the service provider can ensure that value co-creation takes all its participants into account.

#### 1. Value expectation assessment and management

Study revealed that service providers need to know their customers' expectations to realize them. Empirical results showed that not all of the customers were able to gain value they expected, which brings out the importance of assessing and managing expectations. Besides, many previous scholars (e.g. Hsieh & Yan 2010, Parasuraman et al. 1991) emphasize the importance of assessing service expectations. In addition, the first recommended activity for value co-creation is expectation assessment and management (e.g. Ojasalo 2001), which linked to the critical factor regarding customer expectations. *Value co-creation process and customer expectations should not be seen as different processes; they should be connected to each other.* Service provider should include the

*activity of assessing and managing customer expectations into co-creation process on both management and user level. Only by this way service provider knows what each customer expects and can adapt the process of value co-creation to meet the needs of them.*

As the both theoretical and empirical part of the study revealed the changing nature of the customer expectations (e.g. Peppers & Rogers 2004; Duchessi 2001), *the service provider should see expectation assessment and management as a continuous process.* Therefore, this activity should be conducted systematically during the value co-creation process over time. This is important, because empirical results revealed that customer expectations should be used when planning the co-creation activities which fit best for this specific customer. In addition, whenever expectations might change, the process of co-creation need to be adapted to meet the current stage of customer expectations.

*Expectation assessment and management should be done in two levels.* Empirical part of this study revealed the expectations of the current customer of the case company and found out that the management and users of the customer company might have different expectations. As the critical factor about service commitment revealed, the users (sales people) are motivated based on different things than the management. Even though the interviews were done for the sales management, it appears that their expectations might not be the same as the users'. As many of the informants mentioned, *the top management is expecting for business benefits* like more sales and prospects. *Whereas, users expect the service to help their daily work.* As well it was noticed that without the commitment from both of the parties, the service expectations cannot be realized. Based on these findings, *the study suggests that expectations should be revealed from both management and users separately.*

Customer expectations are affecting the nature of value co-creation, because customers' expectations should have specific characteristics in order to help customer to realize the expected value. Since the ultimate goal of the firm is to help the customers to meet their desired level of expectations (Zeithaml et al. 1991) or even go above them (Goodstein 1996), the goal should be in helping customer to have realistic, explicit and precise characteristics in their expectations. The empirical results and Ojasalo's (2001) theory both revealed that customer's desired expectation level can only be met if they have these characteristics. Hence, *the goal in customer assessment and management is to focus, reveal and calibrate expectations* as Ojasalo (2001) describes in his theory.

Customers with precise, explicit and realistic expectations do not need as much expectation management from the service provider as other customers. If customers have these characteristics in their expectations, they more likely know what they want with the service and how they will receive this. Empirical findings showed that these customers most likely want to hear more about “best practices or “extra features” about the software in order to figure out even more ways to benefit from the service. As well, these customers’ expectations should be supported by the service provider in order to ensure that the co-operation is aiming for meeting the same goals. Hence, this study calls this as *affirming value co-creation*. In affirming value co-creation, *where the nature of the activities is more inspirational and supportive*.

An opposite for realistic expectations, customers with unrealistic expectations need more support and help in communicating that what the service is actually about and what not. As well, customers with fuzzy expectations need more guidance. These customers are not exactly sure what they are aiming with the service and they might more likely be insecure how to make the service part of their daily processes. Therefore, the service provider should try to make these expectations more precise and realistic (Ojasalo 2001). Hence, the provider should address clearly that what is the benefit of the service for this specific customer. As well, provider has to go through what is needed from the customer in order to receive these benefits. In other words, *customers with “unwanted” expectations need a lot support in terms of justifying what are their main expectations, clarifying them and thinking on why they should start the usage of the service to meet these expectations*. Therefore, *the nature of value co-creation will be more assertive*.

Yet how can the service provider manage implicit customer expectations? As results showed, implicit expectations are most difficult to reveal because customers themselves might not know their presence (Ojasalo 2001). However, this study suggests that *by combining systematic expectation assessment and management during the cooperation with each customer, it is possible to better avoid the situations where customers do not know clearly what they expect*.

## 2. Business and workflow identification

As empirical findings stated that clear usage process is needed to achieve desired expectation level, service provider needs to understand its customers’ business and workflows in order to help them build a clear usage process with the software. Besides,

Voima, Heinonen and Strandvik (2010) suggested that the main focus in value realization should be in understanding the customers' daily operations. *Business identification* means that service providers account managers should understand the business where the customer is operating in order to understand the needed use cases for the software. This is very important, because many of the informants brought up the importance of their individual business needs during the software usage. *Workflow identification*, on the other hand, is occurring on the user level: since users are the ones using the service, the service provider should understand users daily work in order to help the organization to plane the best usage cases for the users which motivate them.

As customers are using the software to gain business needs from it (Grönroos 2008, 303; Gummerus 2013), the service provider needs to gain a proper understanding of its customers' business. For example, in this activity as well, value dimensions (Voima et al. 2010) can be used in understanding the business of the customer. It is not enough that service provider understands the expectations of the customer (e.g. we want more sales), they need to understand *what the customer is doing, to who the customer wants to sell, how they are doing sales, where they are operating at and when they are doing sales*. The service provider should be able to understand the core business of the customer by these questions. Only after this it is possible to plan the best use cases for this specific company. This business identification can be done as a phone call or short meeting with a customer, where the service provider asks questions regarding the business.

Workflow identification is done in the user level. The empirical study revealed the need of personalized know-how in order to experience value-in use as well as previous theories emphasize the importance of customizing the solution (e.g. Tuli et al. 2007). In order to plan these personalized trainings for users, the service provider needs to understand the daily routines of the users of the service. After this it is possible to plan the workflow for the service usage which suits to some specific users. As many of the informants mentioned in the interviews that they feel that users only get excited to use the service if it brings daily benefits for their work - *the idea in the workflow identification is to focus on each user's daily routine and reveal software's best daily benefits for each of them*. This also supports the theory from Voima, Heinonen and Strandvik (2010), which suggest that service provider should focus on revealing how customers live their lives.

### 3. Communicating the service promise

Because service promises are affecting to customer's expected value (Zeithaml et al. 1993), they should be considered as an important activity in the value co-creation process. As well, Aarikka-Stenroos and Jaakkola (2012) with Tuli, Kohli and Bhardwaj (2007) brought out in their studies that communicating the proposed value and value-in-use potential verifies value co-creation. Therefore, *each customer should receive a personalized service promise, because by this way the firm can ensure that both customer and service provider are working towards common goal in value co-creation.*

Communicating the service promise authenticates trust between the service provider and its customer, which prevents customer non-receptivity and value realization failure (e.g. Vargo & Lusch 2004; Malshe & Friend 2017). It was noticed in the customer interviews that not all of the customers were sure on what is the unique service promise for them. They mentioned that the service provider has discussed on the benefits and possible value-in-use. Yet, these discussions were mostly done in the selling phase.

Based on the importance of communicating service promise, it is recommended that in the future, this activity will be more systematically conducted and highlighted. Communicating the service promise should happen in the management level. This should be done after customer's expectations and business are identified. By this way, *communicating the service promise also engages the customer for the co-creation, because they know what is possible to gain with the service. As well, it verifies customers' own expectations.*

Communicating the service promise activity should include a part, where the service provider also articulates to the customer that *what is needed from them in order to make it possible to meet this service promise.* Empirical results revealed that customers might not be carrying through all the activities in value co-creation and because of this there occurs a value realization failure situation. This might be prevented by *emphasizing the benefits that customers are gaining with the service if they perform some certain activities* (e.g. "if you use the service in a certain way, which is X and X... You will get the following benefits..."). This same finding is also supported by Aarikka-Stenroos and Jaakkola (2012), because they found out that customers might feel insecure because on usability of their own resources and processes. This reflects to the fact that service provider should walk the customer through each activity which is needed from them.

#### 4. Goal setting and measurement

Empirical results revealed the power of goal oriented usage and also previous theory states that customers' imagined future helps them to do judgements about the value of the service (Payne et al. 2006). In addition, *there should be goals agreed with the current customers when they start using the service, because these goals support the customer to meet these goals*. These goals should be in line with customers' value expectations, which also supports their realization.

*Goal setting is done in both management and user level*. Since the management of the company is evaluating the value for the service, the goals are agreed in the management level first and after this communicated to the user. *Goal measurement* on the other hand should only be done in the management level, because as interviews revealed: management is interested in knowing what kind of things are met with the service usage (e.g. how much more sales). Whereas users are more focused on the daily benefits they might gain, not specifically to any "numbers". Nevertheless, because the users are the ones using the service – the measurement measures their activities with the software and then reports these to the management of the company.

*The main customer expectations and customers' own sales goals should be used when planning the best suitable goals for the service usage*. Since most of the customers are expecting more sales, prospects, time savings and more business knowledge - the goals can be connected to these expectations. Yet, they always should be planned individually to each of the customers. As one of the customers stated about the key performance indicators, customer company's own KPI's can be used in planning the most suitable goals.

As some of the customers stated, for example amount of sales or prospects as well as time savings are something they already are measuring - these same measurements can be used. Sales can be measured by following the amount of deals or euros that companies have received from the service and the amount of found leads can be also calculated. In these cases, customers own CRM or some other system can be used in following these results. Lastly, the future needs of the customer are important to consider as well when planning the activities (Aarikka-Stenroos & Jaakkola 2012).

### 5. Planning the usage process

As Aarikka-Stenroos and Jaakkola (2012) and Tuli, Kohli and Bhardwaj (2007) presented the activity of solution customization, in software as a service context this activity will be called “Planning the usage process”. In this phase, the goal is to plan the best processes for the software usage and by this way customize the software for each customer. This activity is crucial, because the customer has to use the service to experience the value-in-use (e.g. Grönroos 2008). After the company knows the expectations of the customer as well as their business and work routines, it is possible to plan the best usage process to meet customers’ goals. This should be done with both the management and the user level in order to commit both of them into the agreed usage process. Like goal setting and measurement, usage process is planned together with the management and after this communicated to the users.

Empirical results revealed the critical activity of clear usage process in many situations. The customers who know how they use the service are more likely to realize their expectations in a higher level. Therefore, there should be a software usage process or “workflow” planned to each of the customers based on their expectations and recognized business and daily workflows. This should include agreeing on the users as well as the actions for the service usage. For example, value dimensions (e.g. Voima et al. 2010) can be used in this activity as well: *who* is using the service? *To what* they are using it? *How* they are using it? *Where* and *when*?

After service provider has revealed the workflows and situations of the customer, it should spend some time in planning use cases for its customer. After it is clear for the service provider that what is the best way to work with the software to some specific customer – it is important to go over this workflow with the service provider and do some changes to it if needed. This will help in avoiding the situation, where the customers are not using the service. As well, it helps in conducting proper implementation and trainings for each user.

### 6. Implementation and follow-ups

Importance of personalized implementation is already emphasized in the previous studies (e.g. Parasuraman & Colby 2001). As well, the empirical part of this study supported that the implementation is one of the most crucial points in order to realize customer value expectations. Therefore, there should be a successful implementation to each of the user,

which ensures the successful start in service usage. Other recommended activity is user follow-ups. Users need help with the usage every now and then as many of the interviews brought out. Hence, the main idea of follow-ups is to ensure that each of the users knows how to use the service continuously.

As Aarikka-Stenroos and Jaakkola (2012) described: the firm should support the customer in implementation. The most important goal in this activity is to ensure that the service provider understands its customers people and their capabilities, because by this way the provider can help its customers to gain greater value-in-use. The implementation should be done in the user level, because based on the interviews the top management was expecting that the users are the ones who should be able to use the service. Yet, all the informants expressed an interest and opinions about how the users should use the service in ideal situation and because of this the implementation should be planned with the management, but after this conducted with the users.

#### 7. Usage process control and reporting

Usage process control and reporting is closely connected to the activity of customer goals and measurement. After the service provider and customer have agreed on goals and measurement systems, there should be an activity for controlling the users' usage process and reporting it to the management. *Usage process control and reporting helps to follow the level to which extent customer goals are met, which also works as a measurement system for level of value realization (e.g. Anderson et al. 1994).* As many of the informants mentioned their interest towards gaining as much business benefits as possible, there should be a clear measuring system which follows the value gained by the users and reports this to the top management.

As empirical data showed that most of the customers who had met their desired level expectations, were also measuring the usage and reporting it inside their organization. Hence, it should be in service provider's responsibility to encourage all the customers to do that in their own customer sphere. Nevertheless, *there should be a planned process with each of the customers, where the customer communicates the results they have gained with the service.* This will be important in terms of level of value realization. If the customer reports bad results of software usage to the service provider, there is still a chance to help the customers in the joint sphere. Without this, the service provider will have more hard time in helping customers in value realization.

### 8. Trainings and support

Since the interviews brought up the importance of know-how of the users, there should be regularly arranged trainings and support for the users. Many of the interviewed informants mentioned that they appreciate regularly meetings with the software provider because it is good to “refresh the users” about features and best practices of the service. Also, empirical findings revealed that regularly trainings increase the usage of the service.

The idea of trainings and support is to ensure that customers know-how to use the service (e.g. Tuli et al. 2007). Because of this, trainings and support are arranged on the user level in order to make sure that users know how to use the service. Even though there would be a successful implementation done, as interviews brought up - the situation of the customer might change which will bring the users to the situation where they are in a need of more training or support. Hence, the amount of trainings can vary depending on the situation and needs of the customer.

Some of the informants brought out the importance of the chat service that Finnish software provider has, which works as a support channel for users while they use the service. As Tuli, Kohli and Bhardwaj (2007) state in their research that the service provider should support customer while their daily usage, also this study recommends that in order to ensure customer value realization, *there should be online help for customers while they use the service.*

## 6. THE FRAMEWORK OF REALIZING CUSTOMER VALUE EXPECTATIONS

This research revealed how software as a service providers can co-create value with their current customers. Since a prerequisite for value co-creation is to know customers' needs and what value will be realized (e.g. Johnson & Selnes 2004), this study first revealed customers' main value expectations and expectation types (e.g. Zeithaml 1991). After this, it was possible to find out what activities are needed from customer and the firm in order to realize customer value expectations through value co-creation process (e.g. Tuli et al. 2007).

This chapter presents a theoretical framework of realizing customer value expectations (Figure 12). *The framework combines summary of the main results from this research based on previous theories and new empirical findings.* Even though the study found out the most crucial activities needed in both joint and customer sphere, Figure 8 is describing *the joint activities of value co-creation process* (e.g. Grönroos & Voima 2013). This is based on the fact that interaction with the service provider and its customers occurs only in this sphere (e.g. Vargo & Lusch 2004). Only by these joint activities, the service provider has the possibility help its customers in realizing customers' value expectations.

As previous co-creation studies, also this one emphasizes the importance of understanding customer sphere (e.g. Gummerus 2013), which is a prerequisite for conducting each joint activity. Yet, this study proposes that in order to co-create value with its current customer, *service provider needs to see value co-creation as a continuous two-level process of realizing customer value expectations.* Therefore, value realization in software as a service industry is not just one-time process. Value co-creation should be seen as a *continuous two-level process, which takes into account both user and management level.* It is shaping up depending on the customer expectations and their situation. The process should be continuous, because even though the value for current customer has been realized at some point, the customer will not be satisfied if the realization will not continue further.

The process of *value co-creation always starts by assessing customer expectations*, which is as well conducted systematically with the customer during time (Figure 12). After this, it is possible to start managing expectations into right direction. This study proposes that *customer value expectations are shaping the nature of value co-creation process.* Customer

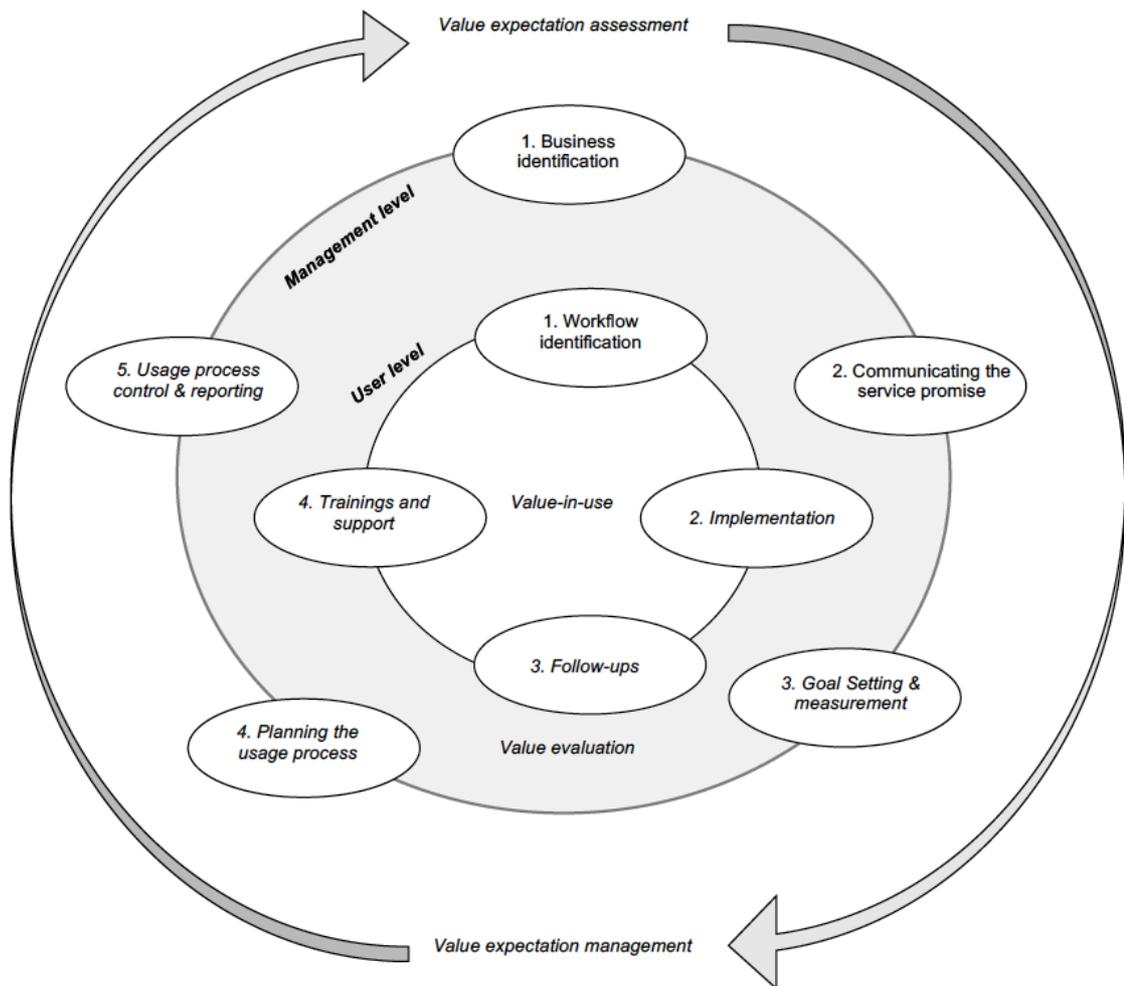
expectations vary overtime and it is provider's responsibility to ensure that value co-creation process is planned to meet the expectations of the customer company during different phases of the cooperation. This can be only done by continuous value expectation assessment and management during the value co-creation process.

In this research, the most common customer expectations were more sales, new prospects, time savings and more knowledge. Yet, *the expectations of each customer varies and every service provider should asses the expectations of their own clients*. The study revealed that customers need either *assertive or affirming co-creation* based on their expectations. Customers need affirming co-creation if their expectations have precise, realistic and explicit characteristics and they have more clear picture on what they are expecting. These customers are most likely to realize their expectations. *Affirming co-creation* is focusing on affirming customers' expectations and the role of the service provider in these cases is to make sure that customers have everything they need in terms of realizing their expectations. Therefore, affirming co-creation is focusing on emphasizing the expectations. Hence, the service provider inspires and supports it customer as well as the role of value experience supporter is more emphasized (e.g. Aarikka-Stenroos & Jaakkola 2012).

If some of unwanted expectation types occur (*unrealistic, fuzzy, implicit*), the service provider should change the nature of co-creation to be more *assertive*. The goal of assertive co-creation is to manage the customer expectations into right direction. In these situations, customers have more unclear expectations and they need help in terms of clarifying them. In assertive value co-creation, the service provider should emphasize the role of value option advisor (e.g. Tuli et al. 2007), because customers with more unclear expectations need help in terms of clarifying them. If the customer has multiple types expectations, affirming and assertive co-creation can be combined together.

Recommended joint activities are always the same regardless of the nature of customer expectations. However, customers' expectations and situation affect to what activity is needed in what time. Therefore, *the service provider should always focus on those activities that are most pivotal for some specific customers' situation*. In Figure 12, there are 5 management level activities and 4 user level activities recommended for value realization after joint activities are divided into user and management level. All of these activities were discussed in the last chapter. In the middle of the circle, there is *value-in-use*, which is experienced by the users who use the service daily level in their work. *Value evaluation* happens in the second circle, where the management is evaluating the value of the service

based on users' value-in-use. Value realization only occurs after users have used the software and the management has evaluated the gained business benefits (Figure 12). Because of this, it is important to have both user and management level commitment for the service usage. Otherwise, value realization failure will most likely occur.



**Figure 12: Realizing customer expectations as a continuous two-level value co-creation process**

Management level activities are mostly conducted before the user level activities. Especially, when the cooperation beginnings. Management activities are the following: *business identification, communicating the service promise, goal setting and measurement, planning the usage process and usage process control and reporting.* User level activities include *workflow identification, implementation, follow-ups* as well as *trainings and support.* All these activities should be planned so that they ensure the best know-how and usage

process for the users as well as engage both management and users into the value co-creation process.

To summarize the key point for each of the activities, the goal of business and workflow identification is to ensure that the service provider knows the daily work routines and individual goals of each user. By this way can help the user to plan the best workflow for the service in order to make sure successful implementation and ensure that the user will be excited to start to use the service. After the service provider know its customer's expectations business and workflow, it is possible to give a service promise and present all the things needed for future cooperation. Goal setting and measurement as well as planning the usage process should be done in order to ensure clear usage process and goal oriented usage as well as grow the management level commitment.

Implementation for the users is done after the firm knows how to create a best workflow and the idea of follow-ups, support and trainings is to ensure the users know how to use the service in later on. These follow-up meetings and trainings are also opportunities for the service provider and its customer to discuss about how the users have succeeded with the usage. Usage process control and reporting should be done regularly with the management in order to know what is next needed for value co-creation.

Ultimate goal of value co-creation is to realize customer value as high level as possible. Therefore, each of the activities can be changed and conducted in different order based on customers' situation. For example, if the customer implementation will fail, it is possible for the service provider to go back to business and workflow identification activity, and after this conduct the implementation again. However, this framework gives a good basis for overall planning this process, so it should be used when software providers are planning future co-creation with current customers.

## **7. CONCLUSION**

This study has increased understanding about value co-creation in the context of software as a service industry. It makes contribution to existing research as well as proposes new findings, which have not been discovered in the earlier studies. This chapter summarizes main theoretical and managerial implications. It reflects to the earlier theories and gives recommendations for the future managers in order to improve future value co-creation processes. Research limitations are discussed as well. In the end, there will be suggestion for a future research.

### **7.1 Theoretical implications**

This paper makes contribution by constructing a new framework for realizing customer expectations as a continuous two-level process. Despite an evident gap in the field, previous scholars have not focused on value co-creation from the same aspect. Secondly, this study increases the understanding in the field of value co-creation, which was not previously been studied in the context of software as a service industry. As well, the study supports earlier findings about value co-creation (e.g. Grönroos & Voima 2013; Vargo & Lusch 2004) and value expectations (e.g. Ojasalo 2001; Zeithaml et al. 1993), but also combines these two theories as a mutual process.

Many of the previous studies have analysed value co-creation process from suppliers' perspective (e.g. Tuli et al. 2007) or in different context (e.g. Aarikka-Stenroos & Jaakkola 2012). Hence, this study will be among the first ones conducted on analyzing the phenomenon from customers' value perspective in software as a service industry. Study demonstrates that value co-creation should be seen differently in the industry of software as a service solutions, because of the unique characteristics of the industry. This supports findings from Payne, Storbacka and Frow (2008), who had already suggested that value co-creation differs in every industry.

Results of this study are emphasizing and agreeing with same issues as some previous theories. This study suggest that the service usage is a critical factor for value realization, which underlines the importance of value-in-use like some previous findings (e.g. Vargo &

Lusch 2004; Payne et al. 2007). Besides, this study supports the fact that value co-creation interactions help customers to gain more value from service offerings (e.g. Ng & Smith 2015; Saarijärvi et al. 2013; Johnson & Selnes 2004). The study agrees with previous studies that value co-creation is a crucial process for value realization (e.g. Grönroos & Voima 2013), but it also emphasizes different activities and roles that are more needed in this context.

Aarikka-Stenroos and Jaakkola (2012) as well as Tuli, Kohli and Bhardwaj (2007) emphasize six value co-creation activities, which are also supported by this study. For example, both previous scholars and this study bring out the importance of personalized customer activities, implementation, trainings and support as well as diagnosing the needs of the customer. Nevertheless, activities from previous scholars occur in one level. Whereas, this study presents completely new framework consisting of total eight activities in two different levels (*user and management*). As well, some of the proposed joint activities are new since they are not discussed in previous literature. For example, workflow identification, goal setting and measurement and communicating the service promise.

The approach to value co-creation based on the findings of this study, is even more customer centric than some others. This study emphasizes more the understanding of the customer sphere than some previous studies (e.g. Grönroos 2008 & Vargo & Lusch 2004). It suggests that the service provider should have a deep focus in customer sphere in order to plan each activity needed for value co-creation. As well, previous literature emphasizes a lot the *value-in-use* concept to be key in the value realization (e.g. Vargo & Lusch 2004; Johnson & Selnes 2004; Grönroos & Voima 2013). This study agrees with these findings, but also made a new finding regarding value realization. This research demonstrates that with value-in-use, also value evaluation occurs before customer value realization. Yet, the study does not disagree with the value-in-use concept, since it supports the fact that without value-in-use, customer value cannot be realized. In other words, value-in-use is also pivotal in context of software as a service industry as well.

Previous studies have presented that customer needs should be always considered in value co-creation (e.g. Johnson & Selnes 2004), but no study has suggested out the customer expectation assessment and management as a part of value co-creation process. Therefore, this study proposes a new finding that value co-creation should always be planned based on each customer's individual expectations. It also recommends that these

expectations are shaping the value co-creation process, where service provider should adopt different roles depending on its customers' value expectations.

Lastly, study proposes that value realization occurs in different levels. Previous co-creation studies have focused on value realization as one outcome (e.g. Grönroos & Voima 2013). However, this study suggest that service providers should focus on following the level of value realization in order to realize their customers value expectations in as high level as possible.

## **7.2 Managerial implications**

Findings indicate that service providers do have an impact on realizing their customers' value expectations through value co-creation. From the practical standpoint, these findings will help software as a service companies, as well as some other service providers, to create successful customer programs and processes. By this way, this research helps the top management to understand what kind of issues should be taken into consideration when planning these processes.

The research helps managers to avoid the situation where the customer value is not realized, because it provides a framework for this process. The framework was explained in as concrete level as possible, in order to make it easily used in practice. As a future recommendation, every service provider should have a deep customer focus and every software provider should start building a suitable co-creation process for their operations in order to increase customer retention.

Viewing value co-creation as a two-level process helps service providers to structure more effective processes for customer management. As well, the framework from chapter 6 can be used as a core for customer management. From a practical standpoint, building relationship in both management and user level with current customers will be important for every software provider. Especially, if the software providers' solutions are used and managed in different levels. As research revealed the importance of trust and commitment, they should be created in both of the levels. Therefore, this study recommends each service provider to focus on systematic communication with their customers and to have contacts in both management and user level.

Managing customer expectations might be hard in some occasions. Especially, if there occurs customer non-receptivity (e.g. Malshe & Friend 2017) or if the customers do have unwanted and unclear expectations. Therefore, a good advice to each of the software providers is to listen to their customers and to ask them questions (e.g. Tuli et al. 2007). In order to help the customers to define expectations, each software provider should build methods for customer account management and for example divide customer portfolios. Then, it is possible for these account managers to start building relationship with their clients and assess their expectations. As Verhoef (2003) and Gounaris (2005) discuss on customer trust and commitment – trust and commitment will be more easily created with each customer if there are appointed account manager. Then, it is easier for the account managers to ask different questions from their customers to assess and manage the expectations. As well, then it will be easier for account managers to act affirming or assertive and choosing the right role in each situations.

A sufficient customer analytics systems are recommended for every software provider. This helps in reporting user level information for the top management, which will help in justifying the service benefits for the current customers. For example, data about customer software logins can be used. Besides, the service providers should build other systems for their customers, which will help in verifying the best usage process and goals for each customer. For example, training programs could be developed depending on how long the customer cooperation has been.

Service providers might also consider to focus on creating more profound implementation programs. Since, implementation and clear usage process were one of the most critical factors for value realization, there is an emerging need in developing these processes. Hence, it would be recommended to have an implementation team within the organization – it might help in developing best implementation programs and procedures. As well, different goals could be agreed in the implementation to make customers more committed from the beginning.

Finally, service providers should be aware of the challenges involved in managing customer expectations and value co-creation process. Major finding of the research is that the expectations of the customers vary through time. Based on this, it is recommended that service providers should be aware of changes in them. This can be done by regular customer contacts as mentioned before, but as well questionnaires for current customers can be used.

### 7.3 Research limitations

Limitations for this study raise mostly from the context of the research and from the data collection methods used. As well, there are some recognizable theoretical limitations. The context of the research was a limiting factor, since the nature of the software as a service business is different from any other businesses (e.g. Barus et al. 2010). Because of this, the research results are not straightly applicable to all of the other industries. Nevertheless, there was an emerging need to study value co-creation in this field, which made the research worthwhile to conduct. As well, the results can be used in other business-to-business service industries where the management and other employees are both related to the customer relationship.

Case study nature was good fit for this study because it made it possible to access a wide amount of data (e.g. Koskinen et al. 2015). Yet, it limited the research to the current customers of one specific company. The results might have revealed other underlying issues if the empirical data would have been collected through more than one source or with multiple different methods: for example, by combination of observing and interviews. Although, this would have required a lot more time and resources.

Since the interviews were conducted for the top management of the case company's customers, the users themselves were not interviewed. Therefore, the data collection method was lacking information from the users' own standpoint. User interviews might have brought more knowledge to the two-level perspective for value co-creation. Besides this, interviews for the case company might have enriched the data. They might have revealed other good aspects for co-creation from the service provider's standpoint. Yet, the interviews were limited to current customers in order to have more information from the customers' side.

This study approached the value co-creation from joint and customer sphere of value co-creation and left out the provider sphere (e.g. Grönroos & Voima 2013). On this account, the approach of this study left out the perspective where value co-creation includes product related issues as well. Another theoretical limitation was that co-creation process was approached from the customer centric perspective, without considering how value co-creation will benefit the service provider (e.g. Prahalad & Ramaswamy 2004).

## 7.4 Suggestions for a future research

This study took the perspective of value co-creation as a joint activity process in, which leaves at least two suggestions for the research in the same context. As some of previous scholars (e.g. Vargo & Lusch 2004; Tuli et al. 2007) discuss about customers as co-producers, it would be recommended to discover how customers could be involved to value co-creation already in the service developing phase. As mentioned in the theoretical part of the study, the software itself has a major impact to how customers can realize value from it, which makes it convenient to suggest a future research for this topic.

More product centric view for research is the second recommendation for a future study, which can be connected to the same or some other context. Since this study entirely left out the product perspective, study about how the software effects value co-creation and value realization is suggested for a future research. This study could also be connected to customer sphere, where the customers individually use the service and to see how the software itself affects to the value-in-use experience in the user level.

Another two issues which emerged during the research were the technological capabilities of the clients and the effect of customer personality. These both two elements could be connected to a study about value co-creation. Firstly, not all of the customers are technologically advanced and there might be a lot differences how customers in different levels of innovation adoption lifecycle need to be co-created value with. Secondly, as Zeithaml (1993) describes the effect of personal needs as well as past other individual connected issues affecting to value expectations - co-creation could be studied in the context of different personality types.

Lastly, as this study proposed the view for value co-creation as a two-level process, it should be further studied in different contexts. Two-level process might be beneficial for other business-to-business industries. Especially, if the business is based on creating long-term customer relationships. As well with this, the connection of value expectations and value co-creation should be further studied in different contexts.

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**Interview plan and interview questions (*questions in Finnish*)**

**Interview plan**

- Semi-structured theme interviews done for 9 people
- Interviews are done for current customers of case company
- Interviews scheduled between 26.3-3.4.2018
- Scheduling interviews, interviewees are informed about:
  1. The study is part of Master's Thesis study about value realization through value co-creation in Software as a Service industry
  2. Confidentiality of the research
  3. Length (45 minutes - 1 hour)
  4. Meeting place (customer's office with no disturbance or distance meeting with Zoom –distance meeting program or telephone)
  
- Interview situation:
  1. Interviewees were again told about the length, recording, purpose and confidentiality of the interview. Also mentioned that interview is done as a research for university.
  2. Main themes were introduced.
  3. Questions in Finnish (*Haastattelukysymykset asiakkaalle*) form was used as the structure for the interview.
  4. Informants were asked if they want to see the Thesis before publication.

Interview plan and interview questions (*questions in Finnish*)

**Haastattelukysymykset (tutkijan versio):**

Haastateltavan taustatiedot

- Nimi:
- Rooli yrityksessä:
- Työskentely historian pituus:
- Asiakassuhteen pituus X-yrityksen kanssa:

1. Asiakkaan arvo-olettamat

- A. Miksi X palvelu on teillä käytössä? (*Minkälaisia ongelmia se teille ratkaisee?*)
- B. Mitä tavoitteita teillä on palvelun käytölle?
- C. Minkälaisia hyötyjä toivotte saavanne palvelusta?
- D. Mitä hyötyjä saatte palvelusta ideaalitulanteessa? (*Milloin olette tyytyväinen palveluun*)
- E. Millaisen "arvolupauksen" X yrityksen henkilökunta on teille antanut?

2. Arvon yhteisluonti prosessin toimivuus asiakkaan ja palveluntarjoajan välillä

- A. Miten hyödynnätte palvelua organisaationne sisällä? (*ketkä käyttää, miten, milloin, mihin?*)
- B. Miten palveluntarjoajan henkilökunta auttaa teitä hyödyntämään palvelua? (*miten voisi auttaa vielä paremmin?*)
- C. Onko henkilökunnalta saatu tukea tuotteen käyttöön? (*tavoitteiden suunnitteluun, palvelun implementointiin, käyttöprosessiin?*)
- D. Miten kommunikointi palveluntarjoajan ja teidän yrityksen välillä tapahtuu? (*ennen käyttöä, käytön aikana, käytön jälkeen, onko parannettavaa?*)
- E. Millaisissa tilanteissa olette yhteydessä palveluntarjoajan henkilökunnan kanssa?

3. Asiakasarvon realisoituminen / Arvon todentaminen

- A. Millaisia hyötyjä olette saaneet palvelusta? (*Taloudellisia, sosiaalisia, prosessi, parempi myynti / markkinointi tms.*)

**Interview plan and interview questions (questions in Finnish)**

- B. Onko palvelun käytön tavoitteet toteutuneet? *(onko jotain hyötyjä mitä jäi realisoitumatta? Osaatko sanoa miksi / mistä johtuen? Mitä hyötyjä haluaisitte lisää? Millä tasolla?)*
- C. Miten seuraatte tai arvioitte palvelun tuottamaa hyötyä yrityksellenne? *(mittari?)*
- D. Mihin olette olleet tyytyväisiä palvelussa? *(Mihin ette? Miksi? Miksi ette?)*
- E. Mitä palvelun käyttö on teiltä vaatinut, jotta saatte siitä tarvitsemanne hyödyn?

- 4. Onko jotain muuta mitä haluaisitte kertoa mitä en kysynyt?

*(Tässä vaiheessa asiakkailta saatettiin tilanteesta riippuen kysyä täydentäviä kysymyksiä, esim. 5:ltä haastateltavalta kysyttiin: "miten tyytyväinen olet palveluun asteikolla 1-5")*

**APPENDIX 2**  
**Main types of customer expectations**

<b>Customer nVivo Code</b>	<b>First order categories</b>	<b>Second order themes</b>
<b>A</b> “New prospects, customers and time savings for our sales team. Our sales people use it daily in their operations to achieve this...”	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met.</i>	<i>Realistic Precise Explicit</i>
<b>B</b> “We are looking for more sales, our salespeople should find x number of prospects every week by using this. Now we are more interested in making our prospecting more efficient because we noticed it takes too much time. Yet, I’m not sure how we can make it faster.”	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met. Was not paying attention to some expectation before.</i>	<i>Realistic Precise Explicit Implicit</i>
<b>C</b> “I’m expecting to find new potential customers for us. Without the software, I know it would take 50% more time. So we achieve this expectation by using it every day by...”	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met.</i>	<i>Realistic Precise Explicit</i>
<b>D</b> “We want to gain qualified prospects and make our sales people to perform better - so time savings as well. This can be achieved with systematic use, like... Yet, I feel that we could use this somehow more effective, not sure how. Perhaps we start doing more active measurement and see what we could do even better... I don’t know.”	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met. Was not paying attention to some expectation before. Not exactly sure what the other expectation is.</i>	<i>Realistic Precise Explicit Implicit Fuzzy</i>
<b>E</b> “We want our sales people to get more sales by... This service makes the work of our sales people more efficient for the new people... Yet, we have gotten feedback from the users that this tool does not help as much in... because of this, there should be something done to get the work more efficient to everyone.	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met Was not paying attention to some expectation before. Not exactly sure what the other expectation is.</i>	<i>Realistic Precise Explicit Implicit Fuzzy</i>

**APPENDIX 2**  
**Main types of customer expectations**

<b>F</b>	<i>“Service will benefit us, because it e.g. helps us to reveal the most important customer projects we are interested in. We are interested in... Only thing is that not all the people use it... It would bring more benefits if they would”</i>	<i>Expectation can be met. Clear picture in mind what they want. Pays attention that will be met.</i>	<i>Realistic Precise Explicit</i>
<b>G</b>	<i>“I guess firstly we are looking for new customers in a new market... but now thing is that we have little resources and very specific industry to operate at so it is difficult to find customers...Perhaps the service provider will solve the problem we haven't done ourselves...”</i>	<i>Not exactly sure what the expectation is. Expectation cannot be met.</i>	<i>Fuzzy Unrealistic</i>
<b>H</b>	<i>“This could bring us a lot savings if we would even find 1 customer. Yet, we have not used this so much... so our fault... Perhaps we'll start now... We haven't defined what we exactly want to reach with this.”</i>	<i>Not exactly sure what the expectation is.</i>	<i>Fuzzy</i>
<b>I</b>	<i>“We bought this as a tool to enrich our CRM data. Still, now we are expecting to know our most potential customers as well as background information of these companies...”</i>	<i>Expectation can be met. Clear picture in mind what they want.</i>	<i>Realistic Precise</i>