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Master's Degree Programme in International Marketing Management

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**DETERMINATION OF POTENTIAL VALUE DRIVERS BY IDENTIFYING
CUSTOMER EXPECTATIONS AND PERCEIVED VALUE**

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ABSTRACT

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The purpose of this exploratory research is to identify the potential value drivers regarding a new service offering. More specifically, the aim is to build understanding of customer expectations and perceived value of energy efficiency solutions in the building's sector. The knowledge is then used in defining potential value drivers. The research is conducted from the customer's perspective in a business-to-business context.

The theory part of the master's thesis focuses on discussing the antecedents of customer expectations and customer value. The theory gives implications how to determine value drivers and develop value propositions as well as conduct value assessment. The empirical part is based on the qualitative research method. The research was conducted as a single-case study, and the primary data was collected through semi-structured interviews with potential customers.

The results of the research revealed that the customer expectations are connected to being able to define value drivers. In addition, the research revealed generic themes relating to the offering and customer-supplier relationship, which help in the process of identifying potential value drivers. The results were discussed in terms of product-, service-, price- and relationship-related value drivers for the new service. Based on the data analysis the dominant value drivers are elaborated in terms of identified customer benefits and customer sacrifices (costs). Finally, some implications of value proposition and value assessment to support the value delivery were given.

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Tämän eksploratiivisen tutkimuksen tarkoituksena on tunnistaa mahdollisia arvoajureita liittyen uuteen palvelutarjoomaan. Tutkimus pyrkii rakentamaan ymmärrystä rakennussektorin energiatehokkuusratkaisujen asiakasodotuksista ja koetusta arvosta, minkä pohjalta pystytään määrittämään mahdollisia arvoajureita. Tutkimus on toteutettu asiakkaan näkökulmasta business-to-business kontekstissa.

Pro-gradun teoriaosuus syventyy tarkastelemaan asiakasodotusten ja asiakasarvon muodostumista. Lisäksi teoriakeskustelussa pohditaan, kuinka määrittää arvoajureita, kehittää arvolupauksia sekä suorittaa asiakkaan kokeman arvon arviointia. Empiirinen osuus perustuu kvalitatiiviseen tutkimusmenetelmään. Tutkimus suoritettiin tapaustutkimuksena ja primääridata kerättiin teemahaastattelemalla mahdollisia asiakkaita.

Tutkimuksen tulokset paljastivat, että arvoajureiden määrittäminen on yhteydessä asiakasodotuksiin. Lisäksi tutkimuksen perusteella paljastui geneerisiä teemoja liittyen tarjoomaan sekä asiakassuhteeseen, jotka auttavat mahdollisten arvoajureiden tunnistamisessa. Tutkimuksen tuloksia uudelle palvelutarjoomalle tarkasteltiin tuote-, palvelu-, hinta- ja asiakassuhdearvoajureiden näkökulmista. Data-analyysin perusteella hallitsevat arvoajurit jaoteltiin tunnistettuihin asiakashyötyihin sekä -kustannuksiin. Lopuksi, arvonluonnin tueksi ehdotettiin tapoja, joilla yritys voisi muodostaa arvolupauksen sekä arvioida asiakkaan kokemaa arvoa.

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Beijing, 13 June, 2015

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1 INTRODUCTION

In recent years there has been a lot of debate about customer value and how it affects the overall competitiveness of an organization. Christensen (2010) claims that in order to create a competitive advantage, it is essential to understand the qualities and attributes which the customers value. On the other hand, Mittilä ja Järvelin (2001) point out that identifying and managing customer expectations is indispensable for a business to survive in the hardening competitive world.

Evans (2002) classifies two complementary approaches to measure and exploit customer value. The first explores how a customer perceives value of an organization's goods and/or services. The succession in the marketplace usually requires that the perceived value of an offering is 'better' or 'higher' compared to competitors' offering. The second approach observes the value a customer brings into the organization in terms of the outcome of providing and delivering superior value for customer. (Evans 2002; Payne 2006) This research aims to understand, first of all, the dimensions and nature of customer expectations, and then how customers would perceive value of an organization providing energy efficiency and automations solutions in the building sector.

Moreover, Keränen & Jalkala (2014) state that only little attention has been addressed the strategies to assess potential and realized customer value in business markets. Often companies also misunderstand or fail to assess the customer perceived value so that they could gain an equitable return for the value they deliver to customers (Anderson & Narus 1999). Anderson (1993) emphasizes the knowledge of value being a critical component of the management in business markets. Therefore understanding the different drivers creating value for customers is the cornerstone of building long-term customer relationships, enhancing the offering, and achieving a competitive advantage (Lichtecthal et al. 1997; Richards and Jones 2006).

This research study is conducted for a company called Valtia, which provides solutions for residential and commercial buildings to make their processes more energy efficient and cost-effective. Currently, the company's portfolio comprises three main services: (1) installations of building automation systems and their real-time monitoring, (2) heat recovery ventilation from buildings, and (3) planning of

renewable energy solutions for buildings. The basic idea of Valtia's offering is to provide customers with a service package including every phase of the service life cycle from initial planning to long-term maintenance enabled by subcontractors. More specifically, Valtia's service process involves an assessment of the building's current processes and needs, planning of the appropriate solutions, the overall implementation as well as monitoring and maintenance of the solution. In addition, Valtia provides its customers with additional services such as a web-based information portal, OmaValtia, as well as financing solutions. (Valtia 2014)

The market, which Valtia is targeting, is rather saturated due to existing technologies and solutions for similar purposes. Moreover, as the company is accessing the market by the means of the technology-push, it is likely to face many challenges regarding customers' needs and preferences. However, Paswan et al. (2009) explain that when competition intensifies and the pace of technological change accelerates, firms could renew their marketplace offering to create superior value for customers through innovation in their services. Consequently, it can be considered as Valtia's competitive advantage since the company has differentiated itself by developing a comprehensive service offering.

A major challenge that Valtia has faced is how to take the customer meeting to the next level in order to make sales. Indeed, by identifying customer expectations and perceived value based on the experiences derived from the past it is easier not only to create a competitive edge but also to recognize the customer needs. Realizing the value drivers of Valtia's offering and deliberating them into the value proposition would improve the chances of creating new customer relationships. In order to achieve deeper understanding of the topic at hand, Valtia would benefit from a documented and measured customer value assessment, which can be utilized to enhance sales, marketing as well as product and service development (Jalkala et al. 2014).

1.1 Literature review

As the theoretical framework of this study embraces both customer expectations and customer perceived value, the origins of the concepts are presented in the literature review. To begin with customer expectations, the roots of the notion can be traced to Helson's (1948, 1964) adaptation-level theory proposing that the degree of satisfaction or dissatisfaction results from one's assessment of his expectation and perception of product performance. Similarly, Oliver (1977, 1980) discusses the role of customer expectations and perceived performance relative to post-purchase satisfaction in his theory of disconfirmation. Based on that, Mittilä (2002) clarifies that in the early days the expectation concepts have been integral to theories of consumer satisfaction.

In marketing, Alderson and Martin (1965) identified customer expectations as one of the three primitive concepts, others being sets and behavior, that enable describing any kind of system relevant to marketing analysis. In service context, researchers such as Grönroos (1982), Parasuraman et al. (1988) and Gummesson (1991) agree that customer perceived service quality is due to the extent how well customer expectations match actual experiences of the service. More recent studies on customer expectation in Business-to-Business context have been conducted by researchers such as Ojasalo (2001), Mittilä and Järvelin (2001) and Mittilä (2002). They discuss the multi-dimensional nature of the concept and the means to manage business customer's expectations efficiently.

Considering the concept of value, it has been in the core of economic thinking already in the early 20th century (Clark 1915). Also, Payne and Holt (1999) note that the notion of value has been implicit in marketing since our industrial beginnings. However, the literature on customer value seems to be somewhat scattered due to being studied from multiple of perspectives over the years. For example, In the 1940s, a number of marketing scholars, such as Churchill (1942), Womer (1944), and Barton (1946), became interested in brand loyalty and repeat purchasing (Sheth and Parvatiyar 1995). While in the 1970s, Kotler (1972) started discussing the concept of value as a part of the exchange theory. On contrary, Grönroos (2010) states that in the contemporary literature customers are seen as the ones who create value out of resources they have obtained. In this sense, the term 'value creation' refers to the process of customer's creation of value.

Nevertheless, Payne and Holt (1999) have identified nine core streams that have influenced the current research in the field of customer value. The streams are divided into distinctive groups such as Influential Antecedents, Recent Perspectives as well as Newer Development in Value Research. (Payne and Holt 1999) The Influential Antecedents group involves the first four research streams: (1) consumer value and consumer values, (2) the augmented product, (3) customer satisfaction/service quality, and (4) the value chain. The difference between value (singular) and values (plural) was studied by Rokeach (1973), who suggests that “values are deeply held and enduring beliefs” while value is “the result of a trade-off (e.g. between benefits and sacrifices) and an interaction (e.g. between a customer and the product/service).” Payne and Holt (1999) argue that the current research on value in the marketing literature is essentially based on that trade-off concept. Relating to the consumer value notion, for example Gutman (1982) studied consumers’ buying behavior and decision-making in the buying situations. He identified product attributes that could be connected to a customer’s values in a means-end chain. Zeithaml (1988) continued his work by developing a conceptual trade-off model involving price, perceived quality and perceived value. (Payne and Holt 1999)

The concept of the augmented product has been extensively studied by Levitt (1969, 1980, 1981) who has broadened the concept of customer value by recognizing elements that can be added to the core output in terms of packaging, services, advertising, customer advice, financing, delivery arrangements, warehousing etc. Payne and Holt (1999) suggest that the concept can be applied in both product and service contexts, and it helps suppliers to actively manage customer value. In addition, Payne and Holt (1999) say that Levitt’s work has been the basis for many studies later on. For example, Lovelock (1995) developed a flower of service -model consisting of eight key elements of supplementary services adding value to the core product. (Payne and Holt 1999)

The customer satisfaction and service quality has aroused a great deal of interest for many researchers and practitioners over the years. Consequently, various tools and models have been developed to identify and measure customer satisfaction and service quality. (Payne and Holt 1999) One of these tools is a so-called SERVQUAL by Parasuraman et al. (1985, 1988) to measure the difference between perceived product and service quality. According to Payne and Holt (1999) customer satisfaction

research has had a major influence on the understanding of what kinds of product and service attributes are valued by customers.

The final stream of the Influential Antecedents, the value chain, was initially introduced by Porter (1985, 36) even though the concept originates from the business system by McKinsey & Co (Payne and Holt 1999). The fundamental idea of the concept is that the internal activities of an organization form a value chain, which can be used to build a competitive advantage. Porter's work has influenced the development of many other value models such as the value delivery system (Bower and Garda 1985a), the customer's activity cycle (Vandermerwe 1993) and the relationship management chain (Clark et al. 1995). (Payne and Holt 1999)

The Recent Perspectives, including the streams (5) creating/delivering superior customer value, (6) value of the customer, and (7) customer-perceived value, focus more directly on the customer and the notion of customer value (Payne and Holt 1999). For instance, in the 1990s customer value was strongly connected to the organizational profitability and performance. In other words, firms' success would depend on the ability to provide customers with what they value. This is closely aligned with the market orientation literature emphasizing that organizations need to become more market- and customer-focused in order to develop and maintain capabilities to deliver superior customer value. (Payne and Holt 1999; Slater and Narver 1994)

The key notion of value of the customer is the Customer Lifetime Value (CLV), which is related to the literature on customer retention (Payne and Holt 1999). Researchers such as Schneider et al. (1980), Schlesinger and Heskett (1991) as well as Reichheld (1996) have studied how to achieve customer retention and profitability, and how the internal service climate and its impact upon employee satisfaction is linked to the customer retention. The value of the customer research stream emphasizes that organizations should not only focus on creating and delivering value but also evaluating the value of the individual customers and the effect of their retention on profitability. As Hallberg (1995) points out that not all customers are equal which means that not all customers are as profitable. Therefore, the customer retention of unprofitable customers would significantly decrease value. (Payne and Holt 1999)

The customer perceived value, one of the main concepts of this study, refers to the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given (Zeithaml 1988). Lapierre (2000) has identified three different categories of key drivers of customer perceived value, which are product, service and relationship related. Moreover, Kotler and Keller (2012, 147) include the difference between the customer's evaluation of all the benefits and all the costs of an offering and the perceived alternatives. Similarly Zeithaml (1988) and Monroe (1990) as well as the majority of researchers (Lapierre, 2000) say that the process of perceiving value typically involves a trade-off between perceived benefits and sacrifices, in other words what the customer receives for the cost he pays for the product or service. In the past, the customer perceived value was often assessed by conducting customer satisfaction measurements (CSM) (Woodruff 1997). However, researchers advise to move beyond the CSM to gain a more comprehensive understanding of what customers' value in terms of which products and services help them to achieve their organizational goals and purposes (Payne and Holt 1999).

Finally, the New Developments in value research consists of the most modern streams involving not only the customers but also other shareholders. These streams are (8) customer value/shareholder value and (9) relationship value. The customer/shareholder value became a point of interest when companies started to regard the creation of shareholder value as a primary business focus. Some academic and practitioners argue that customer value has a positive effect on shareholder value (Corpulsky 1991; Leemon 1995; Slywotzky 1996, etc.), whereas Cleland and Bruno (1996) suggest that maximizing shareholder value supports creating customer value. (Payne and Holt 1999) However, Payne and Holt (1999) claim that they can also exist in isolation from each other.

From the 1990s onwards, customer value has been connected to relationship marketing described as relationship value. The relationship perspective originated in study conducted by Crosby et al. (1990) who examined the relationship quality as perceived by the customers in long-term relational settings. Grönroos (1997) states that "in a relational context value for the customer is not embedded in a transactional exchange of a product for money. Instead customer perceived value is created and delivered over time as the relationship develops." Gummesson (1999) explains that total relationship marketing is directed to long-term win-win relationships with customers, exceeding

boundaries and disciplines with value coproduced through the interaction of suppliers, customers, competitors and others. (Payne and Holt 1999) Lapierre (2000) argues that measuring the value of customer relationships and how customers perceive the total value proposition, including products, services, channels, ideas and so on, have been identified as two of the highest priorities. According to Richards and Jones (2008) the means to improve customer relationships include utilizing value drivers which represents the activities such as integrating offering across channels, individualizing marketing messages, and customizing products and services.

One of the most significant research streams in the 21st century would be the concept of the Service-Dominant logic (Vargo and Lusch 2004, 2006) which has shifted the focus from exchanging goods to a provision of services. Vargo and Lusch (2004) discuss the different meanings of value in respect of the traditional Goods-Dominant Logic as well as the emerging Service-Dominant Logic. Regarding the Goods-Dominant Logic value is defined in terms of exchange-value. In other words, the value is determined by the producer and embedded in goods. Whereas, within the Service-Dominant Logic -firms value is perceived and determined by consumers in terms of value-in-use. (Vargo and Lusch, 2004) Vargo and Lusch (2006) also started discussing the notion of customer value co-creation, which means engaging customers in on-going dialogues with the supplier. The concept has been further studied, for example, by Grönroos (2008, 2010) and Vargo and Maglio (2008).

Keränen and Jalkala (2013, 2014) have recently studied the customer value assessment regarding service intensive solutions in business-to-business context. The researchers have developed a framework with a company-wide approach to assess customer value throughout the customer relationship. The framework involves five phases of value assessment including value potential identification, baseline assessment, performance evaluation, long-term value realization as well as systematic data management (Keränen and Jalkala 2013). Keränen and Jalkala (2014) have also identified three strategies, which emphasize different ways of coordinating and managing organizational units, which are responsible for customer value assessment at different phases of the process. These include emergent value sales; life-cycle value management; and dedicated value specialist strategies.

1.2 Research objectives and questions

The purpose of this research is to build understanding of customer expectations and perceived value, and then apply the knowledge to the case company. The main objective of the research is to identify the potential value drivers that can be implemented to develop Valtia's value proposition. In order for the whole process to be effective, implications of value assessment are also given. Considering the purpose and the objective of the study, the research question is stated as follows:

How to identify potential value drivers?

Lapierre (2000, 128) states that customer value is expected to be context specific, therefore this study is conducted in the business-to-business context from the perspective of energy efficiency and automation solutions in housing cooperatives. By taking into account the context of the study, the sub-questions are as follows:

- *How to identify potential value drivers from customer expectations?*
- *What kinds of appropriate value drivers can be implemented in the offering to maximize the customer perceived value?*
- *How to develop an effective value proposition based on the knowledge of value drivers?*
- *How to conduct a value assessment of the perceived value?*

1.3 Theoretical framework

The theoretical framework presents the entirety of the thesis study (figure 1.1) including both a supplier's as well as a customer's perspective. To identify potential value drivers in business-to-business context the aim is to build a comprehensive understanding of the notions of customer expectations and perceived value. As the value needs to be communicated to the customer, the study explains how the value drivers could be implemented in the value proposition. In order to evaluate customer perceived value, the study also involves implications of customer value assessment for service-intensive offerings.

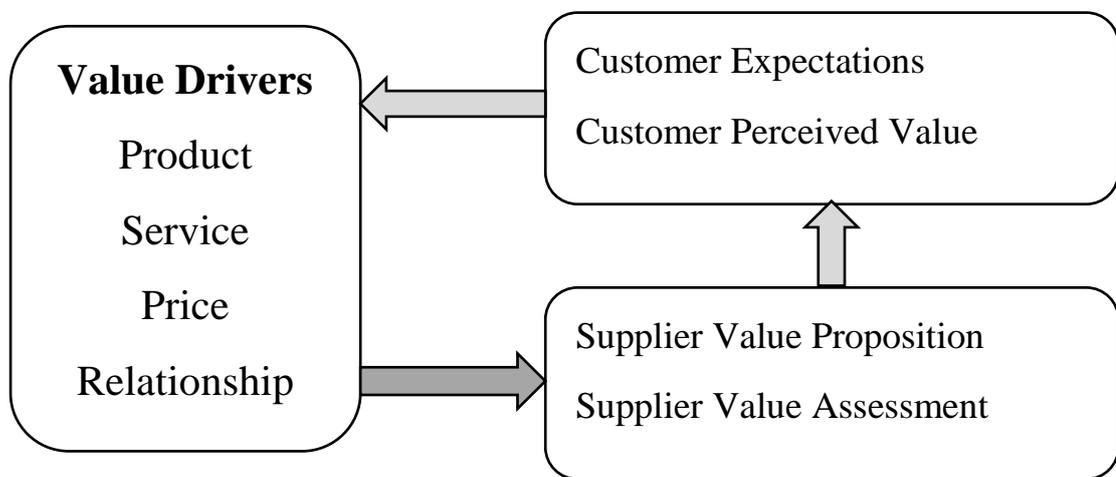


Figure 1.1 Theoretical framework of the study

1.4 Key concepts & definitions

The table 1 identifies and defines the key concepts of the study. The further discussion of the terms and their contribution to the study is provided in the customer expectations and customer value chapters.

Table 1 Summary of the key concepts and definitions

Concept	Definition
Customer expectation in service context	<i>“Customer expectations are beliefs about service delivery that function as standard or reference point against which performance is judged.” (Zeithaml and Bitner 2003, 60)</i>
Customer perceived value (CPV)	<i>“CPV is the difference between the prospective customer’s evaluation of all the benefits and all the costs of an offering and the perceived alternatives.” (Kotler & Keller 2012, 147)</i>
Value drivers	<i>“Entities that increase the value of a product or service by improving the perception of the item and essentially providing a competitive advantage. Value drivers can come in many forms such as cutting-edge technology, brand recognition, or satisfied customers.” (Business dictionary 2014)</i>

1.5 Methodology

The present study is conducted by using the qualitative research method. The research applies the single-case study method, which aims to gain a holistic overview of the research problem. The primary data is collected through semi-structured interviews for building managers who have firsthand knowledge of the systems and processes in housing cooperatives. The purpose is to conduct as many interviews until the data becomes saturated.

1.6 Delimitations

As the case company has a rather few customer references due to the short duration of the business existence, the qualitative interviews are targeted at the prospective customers and their expectations rather than the existing customers. However, it can be assumed that the target customers have gained previous experience or knowledge of buildings' energy efficiency issues and solutions through their work. Therefore, the thesis study takes into consideration the customer perceived value of alternative solutions the building managers have encountered.

Even though the theoretical framework emphasizes both, the supplier as well as the customer, the research is done primarily from the customer's perspective. Nevertheless, by identifying the customer expectations and the antecedents of customer perceived value, it is then possible to determine how to develop an effective value proposition. First, the potential value drivers are being identified by interviewing the prospective customers, and then discussed how the company could benefit from the knowledge in terms of enhancing value delivery.

Another possible delimitation concerns the source of primary data as the interviewees, the building managers, are not the ones who actually purchase the service. It may affect the reachability of the interviewees as well as the quality of their interview responds. However, the building managers are chosen as they are more likely to understand the processes of housing cooperatives compared to e.g. tenants. In addition, also the company itself is targeting the building managers in order to demonstrate their service solution. Therefore, it is logical to regard them as a potential service users and a primary source of data.

Finally, as customer value is expected to be context specific (Lapierre 2000) the results are mainly applicable in similar business environments, such as in the industries developing energy efficiency solutions for buildings and properties. In addition, it is important to note that different customer segments value different features and attributes which may limit the validity of the results in certain contexts. For example, the study focuses on collecting and analyzing data from the building managers' perspective even though Valtia states as its main customer segments also building maintenance firms and constructors.

1.7 Structure of the study

The structure of the study comprises of seven chapters including the current chapter. The chapter 2 introduces the dimensions of customer expectations as well as some strategies to manage them. The chapter 3 presents the concepts of customer value, more specifically the customer perceived value. In addition, both chapters 2 and 3 take into consideration the business-to-business perspective of the concepts. The chapter 4 discusses the notions of value drivers from the product, service, price and relationship point of view. Moreover, the chapter gives implications for developing an effective value proposition based on the potential value drivers as well as for value assessment for service intensive business-to-business companies. The chapter 5 presents the methodology of the study including the research approach, design and case description, data collection, as well as the reliability and validity of the study. Whereas the chapter 6 first describes the research data and then analyses the potential value drivers based on the data. Finally, the chapter 7 presents the conclusions of the study including key findings, managerial implications, theoretical implications, reliability and validity of the study as well as suggestions for further research.

2 CUSTOMER EXPECTATIONS

In order to create long-term business relationships, one needs to take into consideration the customer expectations and realize how to manage them (Ojasalo 2001). Therefore, the various dimensions of B2B customer expectations are being discussed next followed by the elaboration of managing customer expectations.

2.1 Customer expectations in B2B context

Due to the multidimensional nature of expectations, it can be challenging to catch a holistic picture of the phenomenon (Mittilä 2002). According to Mittilä and Järvelin (2001) expectations concern two different aspects: the content and level. Especially in business context, expectations of an evaluator can be both official and unofficial. The official expectations are based on the explicitly or implicitly expressed goals and strategies of a company, while the unofficial expectations are the evaluator's own individual wishes and desires. (Järvelin 2001) On the other hand, Ojasalo (2001) classifies expectations in business environment as fuzzy, implicit and unrealistic. The purpose of a company's expectation management is to convert them into precise, explicit and realistic expectations. Ojasalo's (2001) classifications of expectations are presented first followed by the dual customer expectation levels.

2.1.1 Content of customer expectations

As mentioned customer expectations can be grouped into fuzzy, implicit and unrealistic expectations. According to Ojasalo (2001) in case of fuzzy expectations, customers may have a vague idea of the problem or needed change but do not have a precise picture of what it would involve. In other words, customers do not have a clear understanding of their expectations; they expect something but do not really know what it is. The implicit expectations are certain characteristics or elements of the service, which are not actively or consciously considered by customers. The implicit expectations of the customers become evident when the service provider is not able to meet them, and the service does not satisfy customers. The unrealistic expectations may occur when customers have set the expectations at such high level that they are impossible to meet. This happens especially when customers have defined their problem and determined how to solve it. As a result, customers may not realize that it

would be highly unlikely for the service provider to meet the expectations. (Ojasalo 2001)

2.1.2 Dual levels of customer expectations

Zeithaml and Bitner (2003, 62) argue that in order to comprehend, measure and manage expectations, one needs to have a clear definition of the concept. Therefore, they classify two different levels of customer service expectations. The highest level is called as desired service, which the customer hopes to receive. However, in some cases the customer recognizes that the desired level is not achievable. Thus, the minimum level of acceptable service is termed as adequate service. The figure 2.1 illustrates those two standard boundaries of how customers assess the service performance. In between the desired and adequate levels is the zone of tolerance representing the extent to which customers accept the performance variation. If the performance drops below the adequate level, customers would be dissatisfied with the company and its service offering. In business context, desired service expectations are often driven by the expectations of their own customers as well as managers and supervisors. For example, when a service company has a fault in the IT-system affecting its own operations, the company expects high-level service from its IT-supplier in order to repair the problem for the sake of its own customers' satisfaction. (Zeithaml and Bitner 2003, 62-63) In addition, Zeithaml and Bitner (2003, 64-66) note that the customer's expectations is bounded by a range of desired and adequate levels of service, and also the zone of tolerance may expand or narrow depending on the situation, service dimensions or customer.

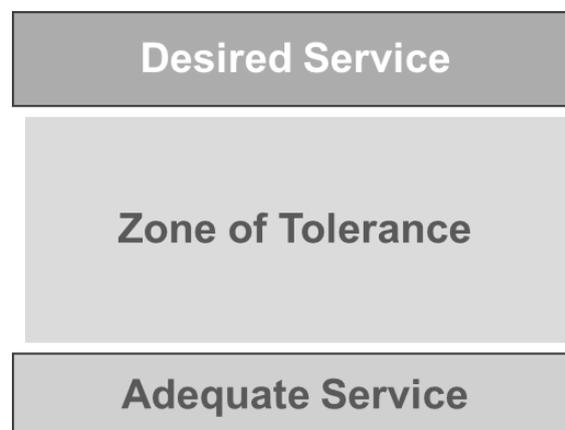


Figure 2.1 Dual customer expectation levels and the zone of tolerance (Zeithaml and Bitner 2003, 63)

2.1.2 Multidimensional nature of expectations

Performance expectations can be divided into economic (financial), technological and social (interpersonal), political and spatial expectations (Mittilä 2002). The economic expectations include, for example, profit margins, cost efficiency and shareholder's returns on investments. Whereas, the technological expectations comprise an evaluation of how advanced and up-to-date technology the organization utilizes. These expectations evolve and change over time as technologies develop.

Mittilä (2002) argues that interpersonal dimensions such as problem solving and consulting skills can outweigh technological and even economic performance. Taking that into consideration the social expectations, which are tied to organizational culture, consist of creating, maintaining, enhancing as well as terminating relationships between business representatives (Mittilä 2002). The political expectations refer to both internal and external politics of an organization. The expectations of the internal politics involve the values, visions, strategies and goals of an organization, whereas, the expectations of the external politics are formed by the operating industry, government as well as international associations.

Finally, the spatial expectations consider the geographical, ecological and traditional versus virtual modes of doing business. For instance, Mittilä (2002) explains that the internal and external expectations are different whether the organization operates in domestic or international field. (Mittilä 2002) The figure 2.2 by Mittilä and Järvelin (2001) represents the multidimensional nature of expectations. The figure also incorporates Ojasalo's (2001) classifications of expectations as well as person's values and information that affect expectations.

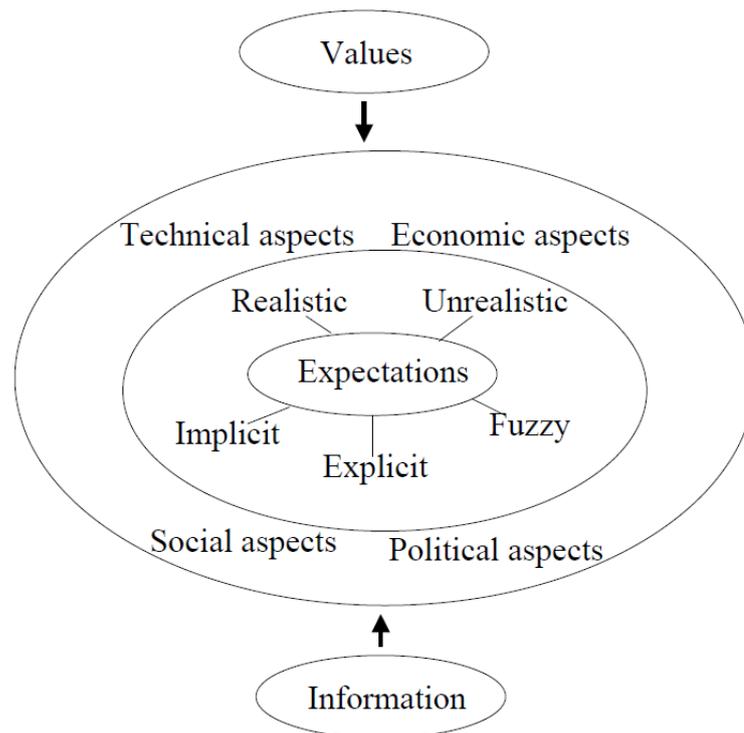


Figure 2.2 Nature of expectations (Mittilä and Järvelin 2001)

2.2 Managing customer expectations

According to Ojasalo (2001) managing customer expectations is important since service quality and satisfaction result from how well the actual service performance matches the expectations. Thus, Ojasalo (2001) presents a framework of managing customer expectations relating to transforming fuzzy expectations into precise expectations, implicit into explicit as well as unrealistic into realistic expectations (figure 2.3). The framework consists of focusing, revealing and calibrating expectations with the purpose of achieving long-term quality and customer satisfaction. The fuzzy expectations of customers are likely to turn into precise expectations when they are systematically analyzed and focused by the service provider. It enables knowing exactly what the customers require and expect. So that customers could avoid unpleasant surprises due to an unsatisfactory service level, the implicit expectations need to be revealed in advance by the service provider in order to turn them into explicit expectations. Finally, the service provider can calibrate the unrealistic expectations to a realistic level to facilitate the goals being achievable in the future. (Ojasalo 2001)

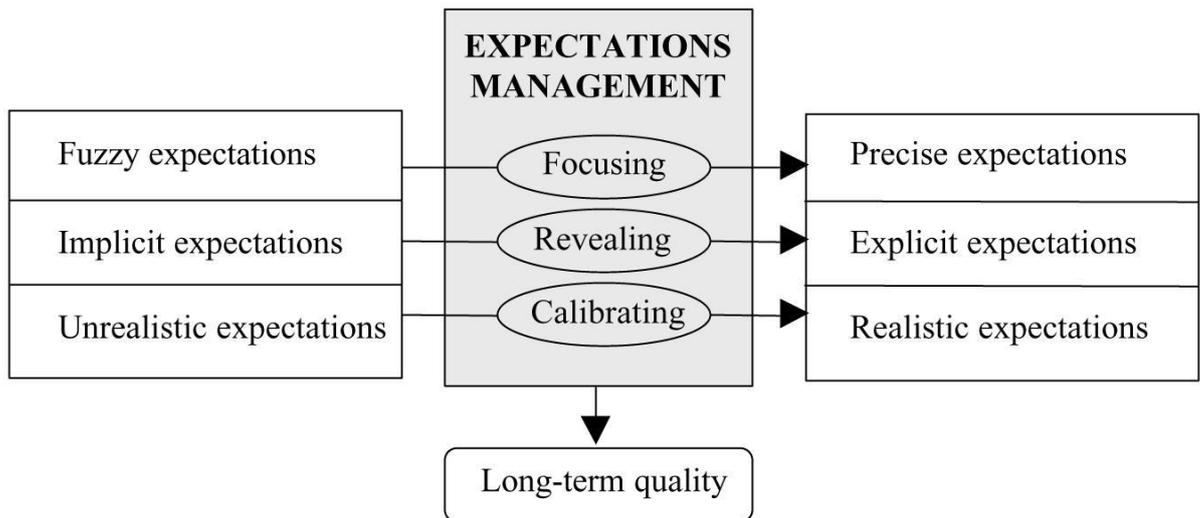


Figure 2.3 Framework for managing customer expectations (Ojasalo 2001)

Zeithaml and Bitner (2003, 74) explain that managers need to understand the pertinent expectation sources and their relative importance to the customer segment or even to a single customer. Factors influencing consist of the relative weight of word of mouth, explicit service promises, and implicit service promises shaping the desired service and predicted service. The figure 2.4 presents how marketers are able to match service delivery to promises and thereby manage customer expectations (Zeithaml and Bitner 2003, 453). It consists of the following categories: manage service promises, manage customer expectations, improve customer education, and manage internal marketing communication.

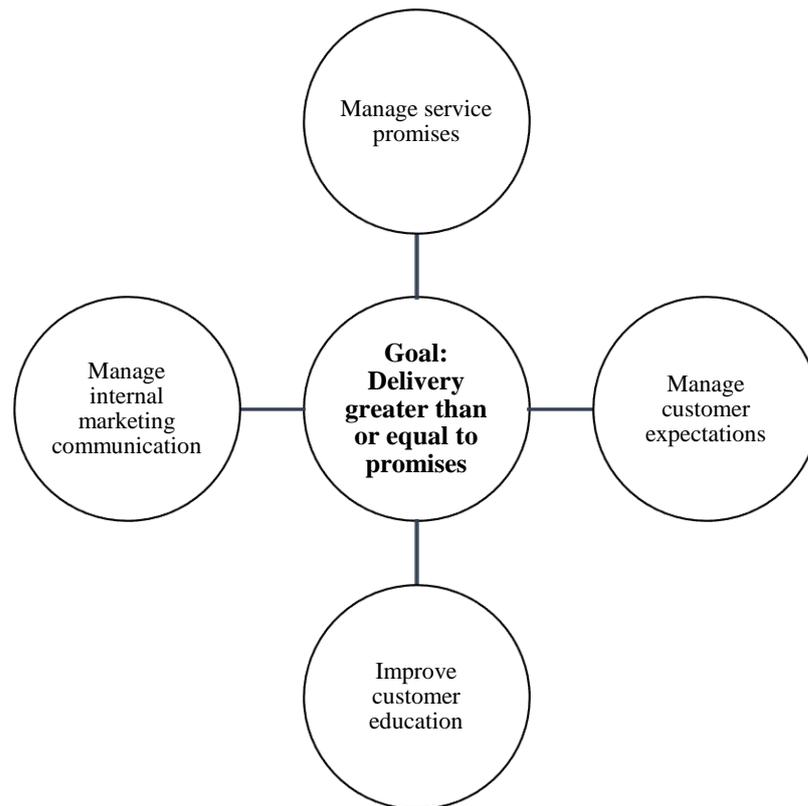


Figure 2.4 Strategies to match service delivery with promises (Adapted from Zeithaml and Bitner 2003, 453)

Managing and coordinating service promises is essential since employee actions cannot be standardized such as physically goods produced mechanically can be. It includes, for example, creating effective services advertising, coordinating external communication, making realistic promises, and offering service guarantees. In order to manage customer expectations Zeithaml and Bitner (2003, 462) suggest that a company should offer choices, create tiered-value offerings, communicate criteria for service effectiveness, and negotiate unrealistic expectations. It is also argued that customers must perform their roles properly for many services to be effective, and therefore improving customer education is considered as one strategy. Customer could be educated, for instance, by teaching them to avoid peak demand periods when placing an order, clarifying expectations after sales, confirming performance to standards, and preparing customers for the service process. The final category, managing internal marketing communication, involves vertical communications from management to employees and vice versa as well as horizontal communications across functional boundaries in an organization. The company can also create cross-functional teams to improve horizontal communications. In addition, the back office

and support personnel who interact less with customers need to be aligned with external customers through interaction and measurement so that they also gain customer-oriented skills. (Zeithaml and Bitner 2003, 453 - 468)

3 CUSTOMER VALUE

In the following chapter, the concept of customer value and its related themes are introduced. First, the overall concept of value is presented and then more specifically the concept of customer perceived value from the business-to-business perspective.

3.1 Defining value

During the recent years the concept of customer value has become a popular topic in the strategy and marketing literature (Khalifa, 2004) in which it is viewed both from the customer's point-of-view and the firm's point-of-view (Landroquez et al. 2013). According to Miles (1989) value is also strongly connected to the performance or costs of a certain product or service; the better the performance or lower the cost, the higher the value is. Miles (1989) also adds that the term value does not have any universal definition, and therefore depending on the author and the context it may have numerous of different meanings. In fact, Zeithalm (1988) already has four different definitions for the term: (1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give.

Payne (2006, 103) divides the value creation process in three key elements: determining what value the company can provide its customers with; determining the value the organization receives from its customer; and by successfully managing this value exchange, maximizing the lifetime value of desirable customer segments. The value the customer receives is "the total package of benefits, or added values that enhance the core product." The value the organization receives comprise "the outcome of providing and delivering superior value for the customer, deploying improved acquisition and retention strategies and utilizing effective channel management." (Payne 2006, 103)

Also, Ulaga (2001) takes three perspectives to elaborate customer value (figure 3.1). The most traditional view, the buyer's perspective, assesses how suppliers create value for their customers and how customers perceive the value compared to competition (Ulaga 2001; Ulaga and Chacour 2001; Anderson and Narus 1999). On the other hand, Rust et al. (2000) state that customers are seen more as a key asset of the business. Accordingly, Ulaga (2001) says that attracting, developing and retaining customers

can be considered as the second perspective, the seller's perspective, of the customer value. The third, the customer-supplier perspective, refers to businesses, which are organized as networks (Ulaga 2001). It is referred to joint value creation between supplier and customer –networks that create value through relationships, collaborating, and alliances (Wilson 1995). Of the three identified perspectives, this study concentrates on the buyer's perspective: “value creation through products and services.”

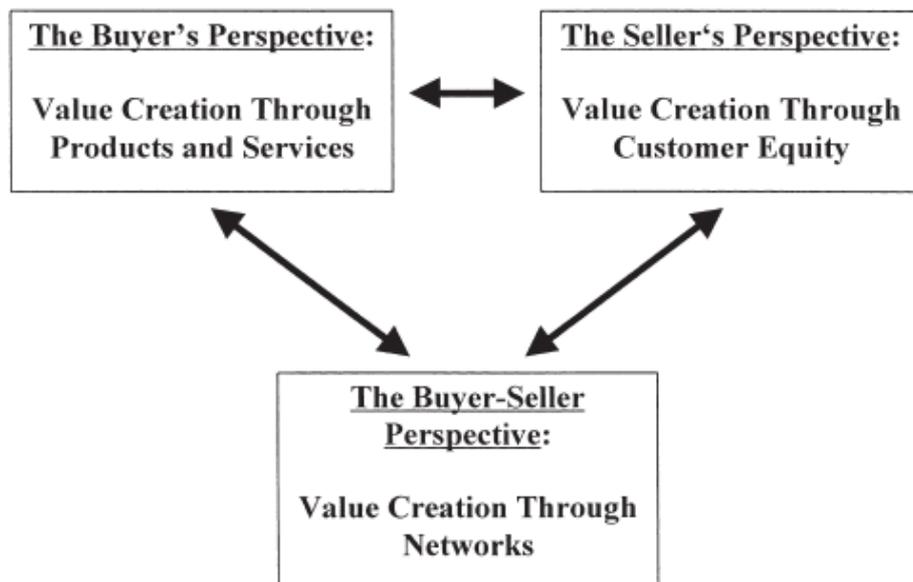


Figure 3.1 Customer value from three perspectives (Ulaga 2001)

As mentioned, the concept of value has been strongly related to the competitiveness of a firm. Thus, an ability to create superior value to the firm's customers is regarded as a critical competitive strategy (Ravald and Grönroos 1996; Walter et al. 2000). In addition, the value creation ability has become a means of differentiation and creating sustainable competitive advantage (Grönroos, 2000; McKenna, 1991). Furthermore, the value-adding elements of the core product have a tight connection to the level of customer satisfaction and customer loyalty. Organizations aim to strengthen the relationship between the company and customers by conducting activities such as improving product quality or including supporting services to the core product. (Ravald and Grönroos 1996) However, Walter et al. (2000) highlight that the supplier needs to offer value to the customer and simultaneously gain benefits from the customer. Therefore, they emphasize understanding how value can be created through a relationship with the customer.

Considering the business markets, Anderson et al. (1993) view value of an offering as a cornerstone of marketing strategy. When defining value in business markets one should consider a number of aspects such as a price of an offering, value-in-use, and alternative products available (Anderson et al. 1993). Value can be seen in terms of the price a customer firm is willing to pay for a product offering compared to the set of benefits the offering provides (Christopher 1982). The second aspect considers value-in-use which is associated with the performance and reliability of the product in a given customer application instead of the exchange value (Reuter 1986; Wind 1990). Finally, value of a product offering can be related to the existing competition meaning that a customer firm compares product offerings based on its knowledge about the focal product and alternatives by competitors. Then, the customer firm is able to set the maximum price it would be willing to pay for the offering. Forbis and Mehta (1981) call this concept as the economic value to the customer (EVC). In relation to the previous aspects Anderson et al. (1993, 5) define perceived value as “the perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer firm in exchange for the price paid for a product, taking into consideration the available alternative suppliers' offerings and prices.”

3.2 Concept of customer perceived value

In this part the concept of customer perceived value is discussed in more detail. Indeed, Kotler and Keller (2012, 147) define the concept as “the difference between the prospective customer’s evaluation of all the benefits and all the costs of an offering and the perceived alternatives.” Kotler and Keller (2012) also demonstrate (figure 3.2) how the customer perceived value is constructed through the division of total customer benefits and costs. The customer benefits include product, service, image, and personnel benefits, while the customer costs are divided into monetary and non-monetary costs such as time, energy and psychological cost.

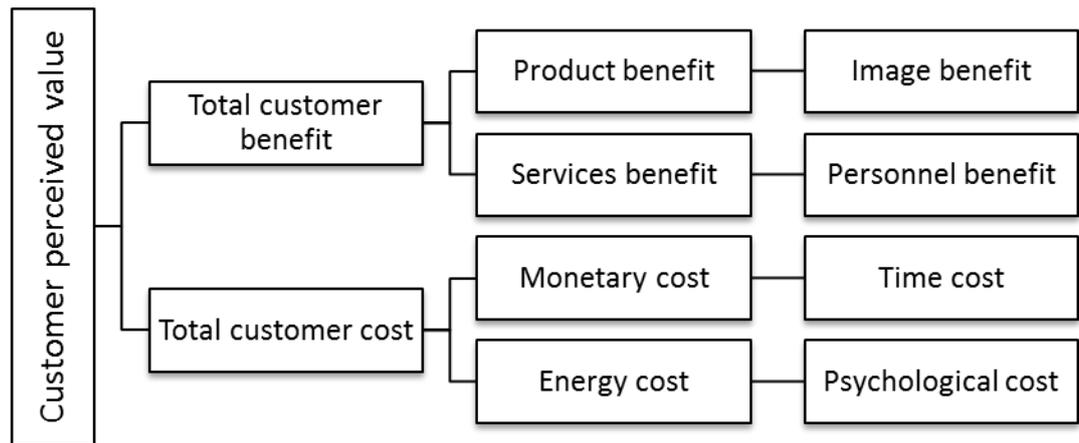


Figure 3.2 Determinants of customer perceived value (Adapted from Kotler and Keller 2012)

According to Woodruff (1997) the literature concerning customer perceived value has typical commonalities about the following aspects. First of all, the core of customer value involves customer utilization of some product or service. This distinguishes the concept from personal or organizational ‘values’ of different situations, services and products deliberating beliefs about right and wrong, good and bad (Burns 1993; Burns and Woodruff 1992). Secondly, a seller does not objectively determine customer value; instead, it is something that has been perceived by customers. Finally, it is widely discussed that customer perceived value involves a trade-off between the customer benefits and sacrifices. (Evans 2002; Lapierre 2000; Monroe 1990; Zeithaml 1988; Woodruff 1997)

Similarly, Eggert and Ulaga (2002) have identified common elements of the various customer perceived value definitions: (1) value has various components, (2) customer value is a subjective concept, and (3) value perceptions are relative to competition. Regarding the multiple components of value, for example, Monroe (1991) divides the perceived benefits as a combination of physical attributes, service attributes and technical support available in relation to a particular use situation. Whereas, Anderson et al. (1993) state that perceived sacrifices are frequently described in monetary terms. The subjectivity of perceived value refers to, for instance, different customer segments might perceive different value within the same product (Eggert and Ulaga 2002). The final common element concerning the value competition means delivering a better trade-off between benefits and sacrifices in a product or service. Eggert and Ulaga

(2002) explain that offering better value compared to competitors helps a company to create sustainable competitive advantage.

Eggert and Ulaga (2002) also emphasize the importance of customer sacrifices in perceiving value referring to Monroe's (1990) argument that customers value a reduction in sacrifices more than an increase in benefits. While, Kotler (2000) argues that customers tend to evaluate which offer would deliver the most value. Therefore, they make the buying-decision based upon which company they recognize to deliver the highest customer-perceived value. However, Kotler (2000) lists some occasions when the buyer might choose not to buy the offer delivering the highest value:

- (1) The buyer might be under orders to buy at the lowest price and is prevented from making a choice based on delivered value.
- (2) The buyer is maximizing personal benefit in the short-run and does not try to convince people of long-term value.
- (3) The buyer enjoys a long-term relationship with a particular supplier meaning that for another supplier to be successful in selling this buyer must be convinced of the long-run benefits.

Furthermore, the customer perceived value concept has been frequently used in relation to customer perceived quality as well as customer satisfaction (Ulaga and Chacour 2001). Companies try to increase customer satisfaction by adding more value to the core product to strengthen customer relationships and achieve customer loyalty (Ravald and Grönroos 1996). In addition, Ulaga and Chacour (2001) argue that for business managers it is critical to know how the value exists in the customers' minds as greater levels of customer satisfaction leads to greater level of customer loyalty and retention, positive word-of-mouth, a stronger competitive position, and ultimately higher market share.

3.3 Customer perceived value in B2B context

In recent literature, the customer value in business-to-business markets has been distinguished by two research streams: the value of (augmented) goods and services, and the value of customer-supplier relationships (Doyle 2000; Ford et al. 2002; Lindgreen et al. 2012; Lindgreen and Wynstra 2005). Next, the streams are discussed in more depth.

3.3.1 Value of (augmented) goods and services

The first stream focuses more on the tangible aspects of customer perceived value (Keränen and Jalkala 2013) evaluating how the offering solves a problem for a customer (Ford et al. 2002). According to Doyle (2000) a product's perceived value consists of three elements: the perceived benefits offered by the company's product, minus the product's price, and minus the other costs of using/owning it. The perceived benefits include the functionality of the product's performance and design, the quality of the services that augment it, the staff who deliver it, and the image of the brand that the company succeeds in communicating. Finally, the product's price refers to the amount of money used when purchasing the product and the other costs, such as installation, insurance, staff training and maintenance, which occur after the purchase. (Doyle 2000; Lindgreen and Wynstra 2005)

3.3.2 Value of customer-supplier relationship

The second stream, the customer-supplier relationship, emphasizes the intangible aspects of customer perceived value including skills, knowledge and reputation (Whitwell et al., 2006). Hollensen (2010, 137) argues that delivering superior value to customer is the key to creating and sustaining long-term industrial relationships. He explains that recognizing customer perceived value leads to greater levels of customer satisfaction that again leads to greater levels of customer loyalty and repurchases. Moreover, it means higher commitment, and ultimately higher market share and profit. (Hollensen 2010) According to Eggert et al. (2005) customer-perceived value in business relationships can be improved by either increasing relationship benefits or decreasing relationship costs. Ford et al. (2002) divide the relationship value to customer in two categories: the current and potential value. The first involves an enhancement of the supplier's current offering and the second providing new potential solutions to solve future problems as a result of learning and adaptation in the customer-supplier relationship (Ford et al. 2002).

On contrary, Lindgreen and Wynstra (2005) argue that supplier and customer firms do not only do business with each other because of the value of the good or service being exchanged. They emphasize that in some cases the value of a relationship for certain offerings is regarded more important than the actual product or service. In other words, the supplier might have certain characteristics (e.g. reputation, location or the

innovative capability) which make their offerings more attractive compared to competitors' alternative offerings.

Grönroos (2003, 140) also connects customer value to customer-supplier relationships as he states: “the starting point for understanding value is the observation that value is perceived by customers in their internal processes and in interactions with suppliers or service providers when consuming or making use of services, goods, information, personal contacts, recovery and other elements of ongoing relationship.” Taking into consideration this customer-supplier relationship concept, Walter et al. (2001) understand value as the perceived trade-off between multiple benefits and sacrifices gained through a customer relationship by key decision makers in the supplier's organization.

3.4 Expected customer value

In case a customer does not have any experience with or knowledge about a product, Naumann (1994, 102 – 103) explains that the customer uses surrogates such as the brand or corporate image to form perceptions and expectations. Naumann (1994, 103) depicts that expected customer value is created by the comparison between benefits and sacrifices (figure 3.3). The expected benefits involve the product and service attributes, whereas the sacrifices comprise transaction and life cycle costs as well as some involving risk. If customers are knowledgeable about the type of product, it is easier for them to formulate perceptions and expectations about the product benefits. Thus, there are three types of attributes that are used by the customer to determine the expected benefits: search attributes, experience-based attributes, and credence-based attributes.

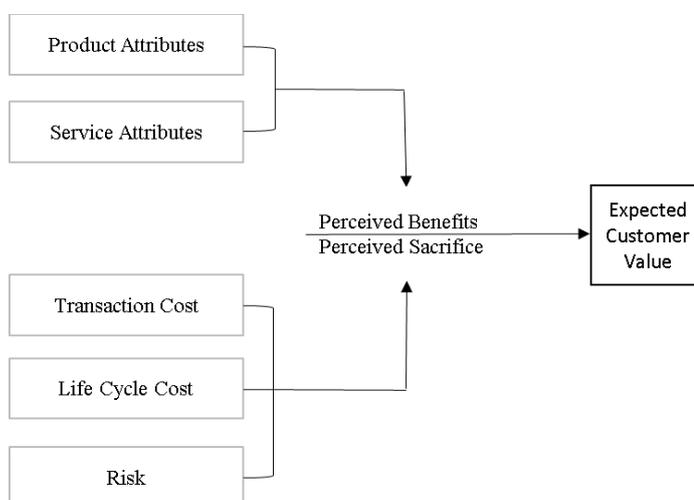


Figure 3.3 Components of customer value (Naumann 1994, 103)

4 VALUE DRIVERS, PROPOSITION AND ASSESSMENT

The main purpose of this chapter is to provide an overview on how to classify various value drivers. The discussion on value drivers enables to understand what customers would value in their current situation. Lapierre (2000) highlights the necessity for a company to understand their offering in order to implement the various value drivers. However, identifying them is not enough; the value needs to be communicated to the customer via value proposition (Shanker 2012). As a final point, this chapter discusses the implications of value assessment in the Business-to-Business context.

4.1 Implications of potential value driver identification

In order to obtain a positional advantage, firms should focus on interpreting and responding to customers' value preferences regarding a marketplace offering (O'Cass and Ngo 2010). Furthermore to achieve market leadership one needs to take into consideration customers' expectations and perceptions of product quality, service quality and value-based pricing which together form the Customer Value Triad (Naumann 1994, 17, 28). In the present research the outline of the value driver discussion is mainly based on Naumann's (1994, 17) Customer Value Triad and Lapierre's (2000) study on value drivers.

Relating to the Customer Value Triad there are five issues to be recognized which should be taken into consideration when thinking of potential value drivers. First, the heart of being customer-driven is realizing the fact that a customer is the one defining what is or is not a good value. Secondly, competitors' alternative offerings or solutions offer guidance to how customers' expectations are formed, and therefore competitive benchmarking is essential. Thirdly, customers' expectations are dynamic and continuously changing which is influenced by the competitive situation in the market. The fourth issue concerns the existence of product and service quality throughout the value-added chain including upstream suppliers and/or downstream intermediaries. All members of the channel ought to be collectively committed to maximize the end user value. The fifth issue encourages to change the corporate culture to facilitate the whole organization being responsible for delivering high customer value. In other words, all employees need to focus on being customer-oriented and understand how their particular role contributes to customer value. (Naumann 1994, 20 – 23, 28 – 29)

Moreover, Lapierre (2000) has identified a variety of value drivers, which are dependent on each other. He classifies them into product (e.g. quality and customization), service (e.g. flexibility and reliability) or relationship (e.g. trust) related value drivers (figure 4.1). The majority of these drivers are recognized as benefits and some as sacrifices. Lapierre (2000) also emphasizes that identifying the drivers creating value helps to understand an organization's offerings and to learn how to provide better value to customers. Logman (2013) suggests that firms should define the dominant customer value drivers that characterize their current marketing strategies. He also gives emphasis to decomposing value drivers in terms of benefits to customers (e.g. innovativeness) and sacrifices to customers (e.g. higher costs). In the following, the potential value drivers are discussed in terms of product, service, price and customer-supplier relationship.

Scope Domain	PRODUCT	SERVICE	RELATIONSHIP
BENEFIT	Alternative solutions		
	Product quality Product customization	Responsiveness Flexibility Reliability Technical competence	Image Trust Solidarity
SACRIFICE		Price	Time/effort/energy Conflict

Figure 4.1 Product, service and relationship related value drivers (Lapierre 2000)

4.1.1 Product related value drivers

The way in which each customer perceives value of an offering varies due to diverse personal values, needs and preferences as well as customers' financial resources (Ravald and Grönroos 1996). In order to make key business decisions such as setting prices, Gupta and Lehmann (2006) emphasize the importance of understanding the customer value sources. The value that customers derive from a product or service can be divided into three categories; economic, functional and psychological value, respectively.

Clearly demonstrating the economic value to customers is essential when launching new products or services and setting prices (Gupta and Lehmann 2006). Especially in business-to-business situations if a supplier is able to prove that customers save money by implementing their solution instead of an alternative from another producer, the economic value is evident. Therefore, the fundamental source of value is the economic benefit a customer derives in use. (Gupta and Lehmann 2006)

The functional value consists of different, often tangible and well-defined, performance features providing customers with utilitarian benefits, which are often hard to measure in financial terms. Psychological value of a product or service involves intangibles such as brand names, and images as well as associations that a customer has with a certain brand. Gupta and Lehmann (2006) underline that as markets mature and competitors become equal in terms of technology and product features, these psychological benefits become major differentiation factors. (Gupta and Lehmann, 2006)

According to Payne (2006, 104) when customers buy products or services, they expect benefits and value from the total offer the company provides. It is emphasized as an important distinction, which can be strategically vital for the long-term survival of a firm (Payne 2006). A product or service is defined by Kotler (2000, 394) as “anything that can be offered to a market to satisfy a want or need.” The total product is the sum of four levels: core, expected, augmented, and potential product (figure 4.2) (Levitt 1980, Payne 2006).

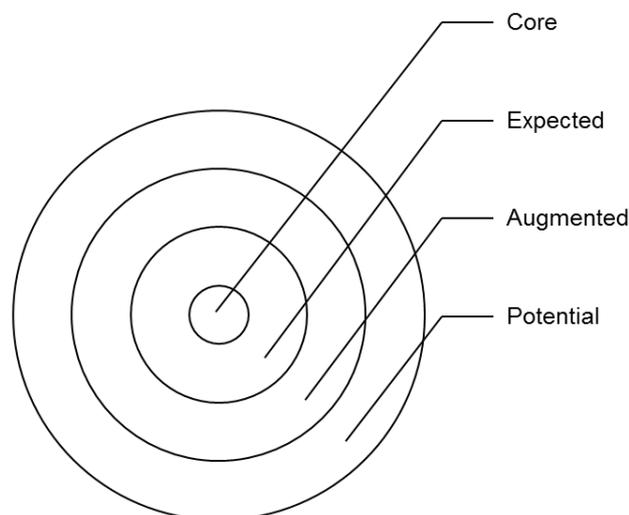


Figure 4.2 Total value offer (Adapted from Payne 2006, 106)

The core product, also called the generic product, comprises the fundamental but basic and substantive product body or components. The core of service offers consists of the main service elements. For banking service, the core product includes safety and transactional utility when doing deposits or withdrawals, for a steel producer the steel itself, for a realtor the for-sale properties etc. (Levitt 1980; Payne 2006, 104, 106). The core product is necessary in order to be able to operate and function in the market; however, the characteristics of the expected components of the product are more important (Levitt 1980).

The expected level of an offer includes the minimal purchase conditions, which are added to the core product (Payne 2006, 105). For example, the expected elements of an electronic device are an instruction book, a warranty for a reasonable period of time as well as a service network if it breaks. Levitt (1980) divides the expected product into delivery, terms, support efforts, and new ideas. The delivery of tangible products comprises components such as specific delivery time, costs involved, proper quantity, flexibility, and preferential treatment in case of shortages. The terms consist of, for instance, specific prices for specific quantities and their payback periods. The support efforts could be some kind of special advice or support such as an instruction book or 24/7 help line. Lastly, the new ideas refer to a supplier's ideas and suggestions for more efficient and cost-effective ways of using the core product. It is emphasized that a failure in providing expected elements of the product could reflect unfavorably on the core product and therefore reduce sales. However, sometimes customers want or expect less and they may regard some of the product features unnecessary or unusable, and for that reason they may refuse to purchase the product. (Levitt 1980)

The augmented level enables differentiation of an offer from its alternatives, for instance, by offering excellent after sales service (Payne 2006, 105). Levitt (1980) states that an augmented level indicates the product being beyond what buyers require or expect. Parasuraman (1998) also notes that in business-to-business contexts marketers are increasingly augmenting their core offerings with free supplementary services such as consulting, training of customer-firm personnel and product customization to differentiate their offering. According to Levitt (1980) the augmented product is a condition of a mature market or of relatively experienced or sophisticated customers. In matured markets in which often businesses do not want to rely solely on

the price competition, differentiation is essential to attract and retain customers even though some customers prefer lower prices to product augmentation.

Finally, the potential level comprises all the added features and benefits that are or could be useful or value adding for some buyers (Levitt 1980; Payne 2006, 105). Referring to Payne (2006, 105) the potential for redefinition of the product gives advantages in attracting new users or enhancing relationships with existing customers. It is also said that the potential level of an offer could make the switching cost to an alternative product higher (Payne 2006). When defining products and their different elements, Levitt (1980) emphasizes that all people perceive them differently. “What’s augmented for one customer may be expected by another; what’s augmented under one circumstance may be potential in another... (Levitt, 1980)”

4.1.2 Service related value drivers

In order to create great customer perceived value delivering high service quality is essential (Naumann 1994, 77). Normally product sales include a bundle of support services, which can be categorized as presale, transaction and post-sale services. The presale services are those that usually provide the customer with information and assistance in the decision-making process. The range of presale services varies across industries and customers. However, they may include order preparation services, noticing of forthcoming price and inventory changes, consulting or even responding to a simple question a potential customer has placed. It is rather common that customers expect some presale services even though often firms are not aware of what services their customers want or the relative importance of each service. (Naumann 1994, 81-82)

The transaction services are related to the exchange situation between a firm and its customer and they could include services such as commitment to firm delivery dates, financing and credit terms, information on guarantees, and information about inventory surplus or shortage etc. Individual as well as business customers require personalized service, however, quite often the transaction services are based on the firm’s needs rather than the customer’s needs. Therefore, the customer is likely to perceive ignorance or impersonal service from the firm. The post-sale services, which often attract the most attention from the firms, consist of services that occur after the transaction. These services could include, for example, a variety of customer training programs, modifications or replacement of older equipment, or sales follow-up to determine

customer satisfaction. Moreover, the firm should have a systematic process for post-sale service and contact as well as make it easy for customers to approach the company and request desired services. (Naumann 1994, 82 – 84)

The determinants of service quality include 10 criteria (Parasuraman et al. 1985). These determinants are reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. These determinants influence the purchase decision-making process of customers even though they are not exclusive or appropriate for all situations. The reliability refers to having consistency in performance and being dependable, whereas the responsiveness involves the timeliness of service in terms of answering to customer requests, calling the customer back quickly or giving prompt service in general. The competence means that employees and contact personnel have required skills and knowledge to perform the service. The access refers to providing an easy-access for the customer to contact the firm including approachability by phone and convenient location of service facility. Courtesy implies, for example, being polite, respectful and friendly, whereas communication involves keeping customers informed in their own language and adjusting the way of explaining, for instance, speaking in simple terms with a novice customer. The credibility means that the firm is trustworthy, believable, and honest; on the other hand, the security refers to freedom from danger, risk, or doubt. Understanding the customer involves learning customer specific requirements, providing individualized attention as well as recognizing the regular customers. Finally, tangibles consist of physical evidence of the service such as physical facilities, appearance of personnel, tools of equipment used to provide the service as well as physical representation of the service. (Parasuraman et al. 1985)

As customers and suppliers may have different perceptions and expectations of the level of the service, the service quality model, also called the gap model, is a useful tool to assess these differences (figure 4.3). (Parasuraman et al. 1985) The service evaluation criteria is usually derived from sources such as word-of-mouth communication, personal needs, past experiences as well as external communications to customers, the model identifies five gaps that can hinder service delivery. The first gap, the research gap is between customer expectations and management's perception of those expectations. It is due to the lack of understanding or misinterpretation of the customer's wants, needs, and desires. Understanding customers is the baseline for successful business operations.

However in case the firm does little or no marketing or customer satisfaction research, or is not able to integrate the results into the decision-making the firm is likely to experience this gap.

The gap 2, the planning and design gap, results from management's inability to translate the customer's needs into delivery systems within the firm. In other words, the gap is between the management's perception of what the customer wants and the designed capabilities of the system that management develops to provide the service. The gap 3, the implementation gap, is between what the service system is designed to provide and what it actually provides. This can result from poor employee training, motivation or human resource management. The gap 4, the communication gap, is between what the service system provides and what the customer is told it provides. It can be due to misleading promotional campaigns, very short-term view on management, or underestimating customers and how they evaluate the service. At worst, it can damage the firm's reputation and image because of dissatisfied customers. The gap 5, the reality gap, occurs between customers' service expectations and their perceptions of the service. According to Parasuraman et al. (1985) if all the other gaps are closed the service delivery meets at least the minimum level of customer expectations.

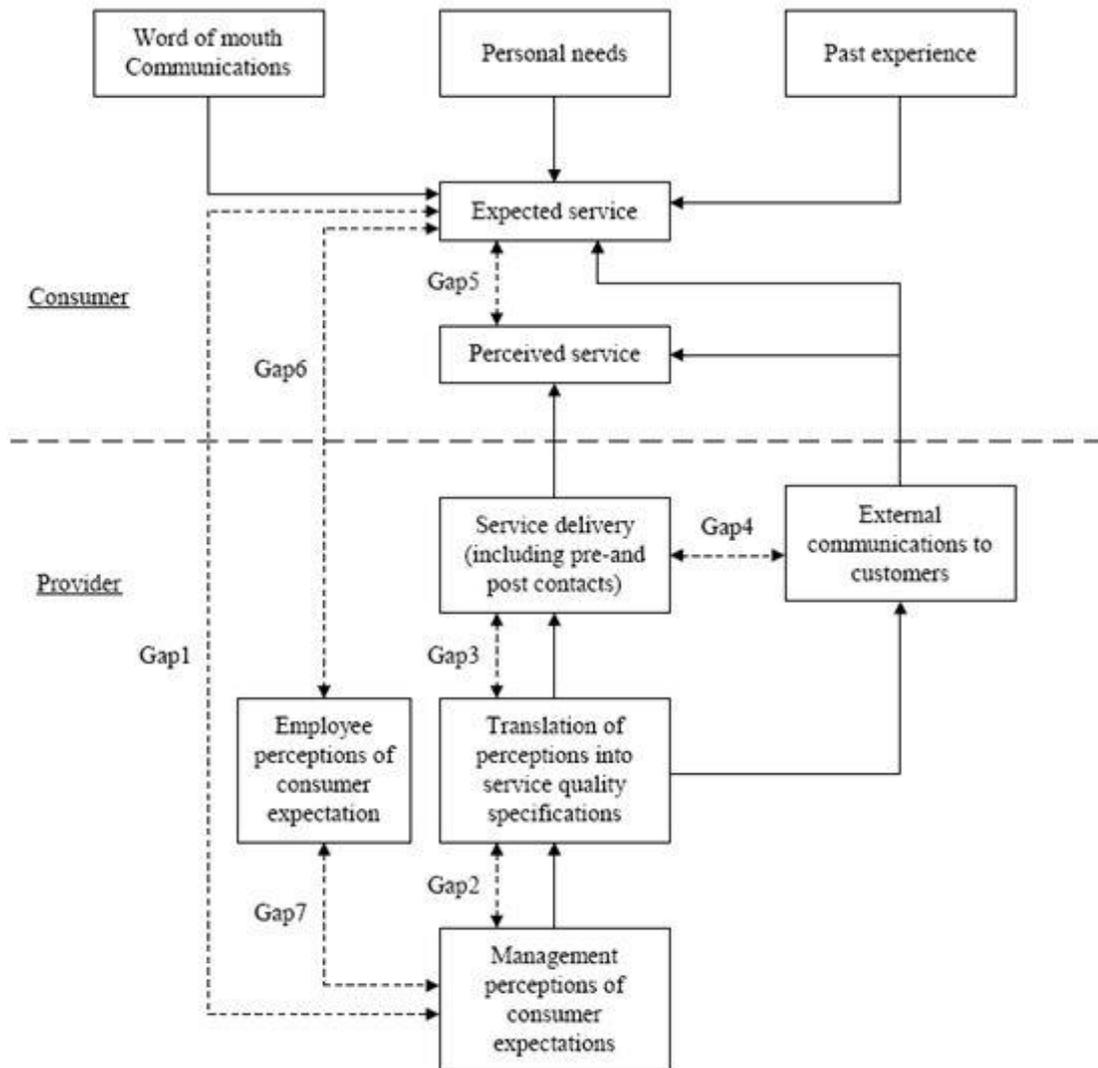


Figure 4.3 Service Quality Model: The Gap Model (Parasuraman et al. 1985)

4.1.3 Price related value drivers

By adopting a value-based pricing strategy, a supplier is more likely to deliver higher customer value (figure 4.4). It consists of a variety of contextual factors such as corporate image, store name, or brand image providing a customer with indications of the product or service. Naumann (1994, 113) calls these factors as extrinsic cues and even though they may not be a part of the offering itself, they may have an impact on customer perceptions about the product or service quality. Usually the decision-making process of a customer involves comparing the focal product with an alternative reference product by using the search-, experience-, and credence-based attributes. The search attributes include intrinsic tangible and palpable characteristics that could be evaluated to some extent prior to purchase. However, the familiarity and experiences

play a more essential role regarding the perceptions about the actual product. Thus, the more experiences the customers have, the more accurate their expected product or service benefits are. (Naumann 1994, 113, 115)

The bundle of extrinsic and intrinsic cues as well as the familiarity and experience form the customer's expectations of the product or service quality. Compared to the reference product the expected benefits can be superior, equivalent, or inferior which are further compared to the expected sacrifices. When the customer makes purchasing decisions, the price of the reference product serves as an anchor point for comparison. Naumann (1994, 116) notes that the concept of price involves transactions costs, expected life-cycle costs and some risk factor. The price itself is not only a financial sacrifice but it may also preclude other activities and forgo alternative opportunities. The life-cycle costs include, for example, maintenance and insurance costs, which can vary in comparison to alternative solutions. Accordingly, as discussed earlier the ultimate customer value is determined through a trade-off between expected benefits and expected sacrifice. Customer value can be enhanced by increasing benefits while holding the sacrifice constant, or by increasing the benefits faster than sacrifices. As a final point, the expected value is directly related to the willingness to buy; the greater the expected value, the more likely customer buy. (Naumann, 1994, 115 – 118)

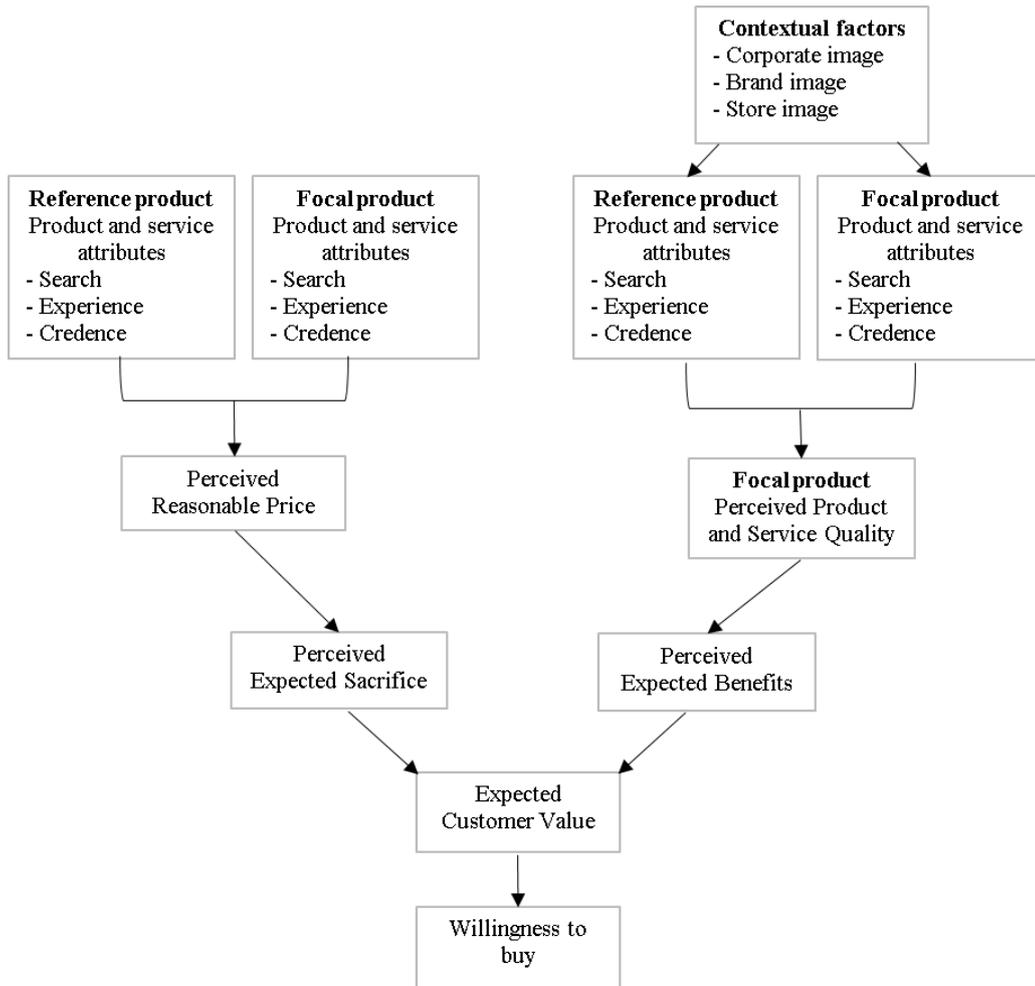


Figure 4.4 Value-Based Pricing Model (Naumann 1994, 114)

4.1.4 Relationship related value drivers

The value drivers regarding customer-supplier relationships are based on learning from customer expectations and requirements, establishing mutual trust, and adding a personal touch to customer interactions. More specifically, by establishing a relationship and interacting with a customer, the supplier is able to learn the customer's expectations and requirements about certain products or services. The relationship ought to be based on trust, commitment, and belonging which enables both parties to do business with each other. As a final point, since products and services are growing more standardized and less distinguishable from each other, by providing a personal touch to the interaction with customers is often advantageous. (Godson 2009, 42 - 43)

Specifically regarding business markets, Ulaga (2003) emphasizes the importance of understanding the value drivers in customer-supplier relationships. It results from

customers continuously evaluating which relationships are valuable and worth maintaining and in turn which relationships should be divested due to delivering low value. In maturing markets suppliers aim to differentiate themselves through relationships. Therefore, Ulaga (2003) has identified eight customer-supplier relationship value drivers, which help the supplier to assess the elements adding value to the customer (figure 4.5). These value drivers are: product quality, delivery, time-to-market, direct product cost (price), service support, supplier know-how, personal interaction, and process costs. Those particular relationship value drivers are subdivided further, for example, product quality consists of performance, reliability and consistency.

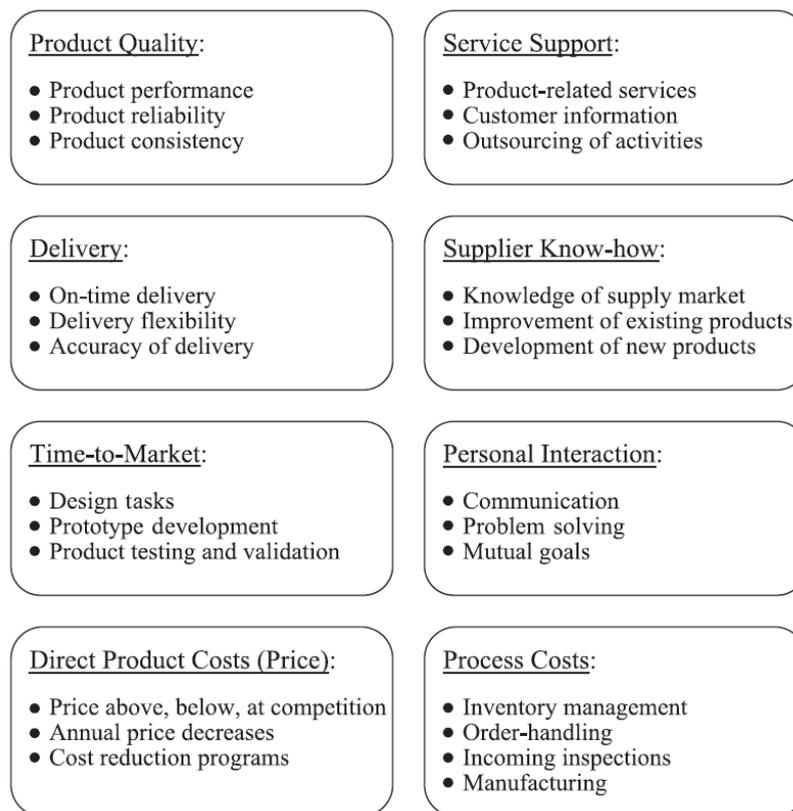


Figure 4.5 Relationship value drivers (Ulaga 2003)

Regarding relationship value it has been proven that there is a direct connection between commitment and satisfaction on increasing loyalty (Gil-Saura et al. 2009). Those variables are important to establish in order to continue and expand the customer-supplier relationship. In other words, when the supplier has created value for the customer and thereby if the customer considers the relationship valuable it generates satisfaction and commitment. In addition, the supplier should emphasize

assessing and building relationships not only with customers but also with their partners for the purpose of having a direct or indirect impact for customers to stay in the relationship. The ultimate benefit of having sustained relationships for both supplier and customer are improved sales and profits, increased communications and opportunities for growth and innovations. (Gil-Saura et al. 2009).

4.2 Implications of value proposition

According to Payne (2006, 123) in recent years managers have started to use the value proposition –term more frequently. He also suggests that organizations have two different ways of employing value propositions: the notion of creating value in a very broad sense as well as a detailed analytical approach to value creation. The basic idea of value propositions is that they explain the relationship between the performance of the product or service, the fulfillment of needs and the total cost to the customer (Payne 2006, 124). Vargo and Lusch (2004) suggest that service-centered firms are constantly striving to make more compelling value propositions compared to the competitors. However, consumers are the ones to determine the value of the offered value proposition and participate in creating it through the process of co-creation (Vargo and Lusch 2004). In that sense, customer-orientation is essential when defining value propositions (Payne and Holt 2001). Mazumdar (1993) suggests that a value proposition implies much more than a trade-off between product and price. Nevertheless, recognizing what the customers seek from the offering, helps firms to formulate their value propositions (Landroquez et al. 2013).

Shanker (2012a) states the firm's value offering needs to be communicated to customers in terms of value proposition, which provides distinctive, measurable, sustainable value. Distinctive refers to superior value compared to the competitor's offering, while measurable value allows customers to evaluate the value in monetary terms, and sustainability ensures that customers can rely on continuous value delivery (Shanker 2012a). In addition, a value proposition can be constructed by identifying barriers such as insufficient wealth, access, skills and time, which may limit the customer's operations. Shanker (2012b) points out that customer value perception is constantly evolving, and therefore the value proposition as well as the offering needs to be modified to meet the changing customer requirements.

Lanning and Michaels (1988, 2000) who define value proposition as a statement comprising the benefits and involved costs of an offer to a specific customer group initially discussed the concept in such terms. The idea behind the definition is the buying criteria on which customers base upon their purchase-decisions consisting of the benefits of a certain product and service and its price (Lanning and Michaels 1988). Ballantyne et al. (2010) claim that value propositions are conventionally taken to mean the marketing offer or value promise formulated and communicated by a seller with the intention of acceptance by the buyer. Frow and Payne (2011) argue that value propositions used to have strong vestiges of Goods-Dominant Logic as they emphasized the value delivered by a supplier. However, the Service-Dominant Logic has enabled businesses to consider their value propositions in a new way as a customer and supplier co-create value (Frow and Payne 2011). Vargo and Lusch (2004) state that enterprises can only make value propositions. Later Ballantyne et al. (2010) concluded that enterprises can initiate value propositions but only a beneficiary can determine in use what is of value.

When developing value propositions Lanning and Michaels (2000) consider that at first, a company needs to work out exactly which concrete benefits and observable features potential customers want and at what price. Then, the business is able to group buyers into specific segments, which value more or less the same product features and benefits, and are willing to pay more or less the same amount for the product or service. After segmenting the market the business may start assessing the possibilities for delivering each segment superior value. It is important to realize that due to potential limited resources the business unit should focus on one or two segments at a time. Having selected which segments to target, the business unit can plan long-term strategies and design value propositions promising the best results. (Lanning and Michaels 2000)

According to Lanning and Michaels (1988) in order to become competitive in the market, formulating right value propositions is not enough, they need to be delivered and communicated efficiently to the target market. Consequently, the value proposition needs to resonate throughout each customer touch point and layer of the organization to ensure the enforcement of the chosen value. To help the echoing process Lanning and Michaels (1988, 2000) have developed a value deliver system - framework (figure 4.6) which divides the business system into customer-oriented

stages including choosing the value, providing the value and communicating the value to the customers. The framework presents the means to use in delivering value (Payne, 2006).

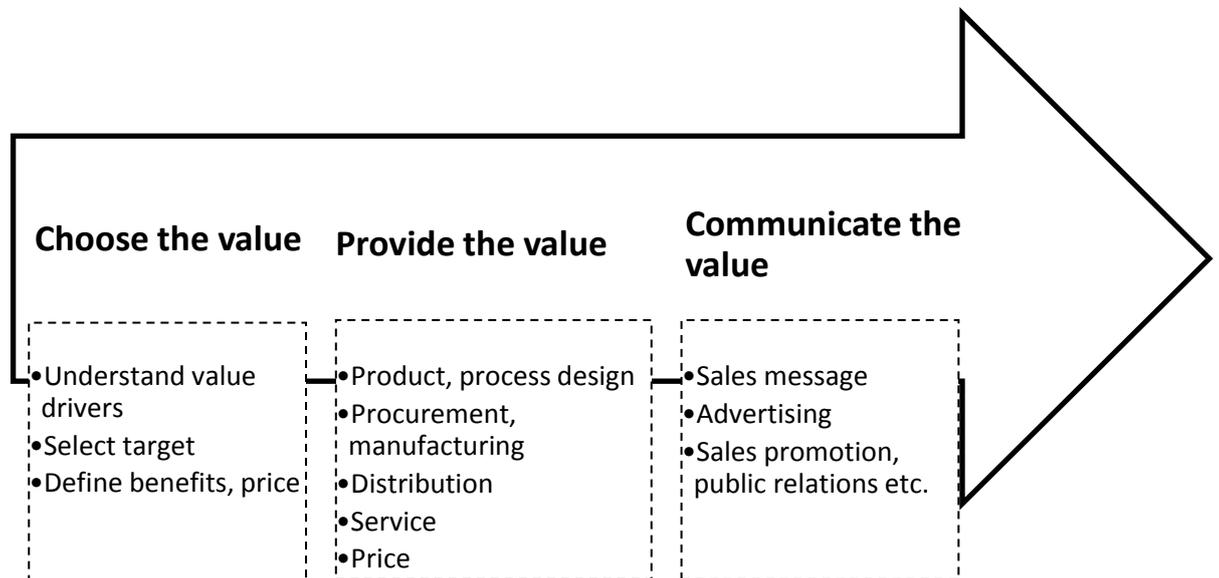


Figure 4.6 Value delivery system (Adapted from Ballantyne et al. 2010; Lanning and Michaels 2000)

Similarly to Lanning and Michaels (1988, 2000) Payne (2006, 124) divides the concept of value proposition into formulation of the proposition and building a value delivery system. Payne (2006, 124) includes in the development of value propositions determining the target customers, benefits offered to these customers, the price charged relative to competition, and a formal statement of the value proposition. The processes of formulating value propositions are:

- analyzing and segmenting markets by attributes that customers' value
- assessing opportunities in each segment to deliver superior value
- explicitly choosing the value proposition that optimizes these opportunities

(Ballantyne et al. 2008; Lanning and Michaels 1988, 2000; Payne 2006, 124).

Anderson et al. (2006) argue that in the business markets most value propositions make claims of savings and benefits to the customer without packing them up. Another misconception of value propositions is that some managers regard them as a form of spin developed by marketing departments and used in advertising. According

to Anderson et al. (2006) this view neglects the fundamental contribution of value propositions to superior business performance. If value propositions are properly constructed, businesses are able to focus on what their offerings are really worth to their customers. Understanding customers' perceived value enables making smarter choices about allocating limited resources. They have categorized different ways in which suppliers usually use the term value proposition: all benefits, favorable points of difference, and resonating focus. The first, all benefits, simply lists the benefits the suppliers believe to deliver to target customers. The second type includes all favorable points of difference a market offering has relative to the next best alternative. The third type is the most desirable as it comprises one or two points of difference whose improvement will deliver the greatest value to customer. (Anderson et al. 2006)

4.3 Implications of customer value assessment

Finally, in order to determine if the value proposition matches the customer expectations and perceived value, it is essential to assess the offer from the customer's perspective. As value is the underlying consideration that determines decisions about product development and modification, pricing, distribution alternatives and marketing communications, it is critical for managers to be able to assess the value of their offerings and know how to improve them (Anderson et al. 1993; Wind 1990). Evans (2002) points out that measuring the customer perceived value is important in order to find out if it is higher in relation to competitors' offerings. The customer value assessment reveals if the organization needs to take action to enhance and maintain competitiveness in terms of higher customer perceived value (Evans 2002). According to Ulaga and Chacour (2001) the customer value analysis is a strategic marketing tool to clarify a company's proposition to its customers.

Lindgreen and Wynstra (2005) explain that customer value can be measured as a difference between benefits and costs, or in value-price ratios. From the Service-Dominant Logic point-of-view, only the customer can assess value and always co-creates value (Vargo et al. 2009). In other words, according to Vargo et al. (2009) value is not obtained in the economic exchange of market offering but rather through their use and within a context. Jalkala et al. (2013) agrees that by conducting the customer value assessment, firms are able to identify the customer perceived value

from adopting and implementing the supplier's solutions. Keränen and Jalkala (2013) have identified five key strategies (figure 4.7) for a comprehensive customer value assessment in a business-to-business environment. Essentially, the first two processes are conducted prior to the delivery of the solution. The post-delivery strategies are usually the third and fourth, and the fifth key process is conducted during each step of the assessment process. The strategies are stated as follows:

- 1) Value potential identification
- 2) Baseline assessment
- 3) Performance evaluation
- 4) Long-term value realization
- 5) Systematic data management

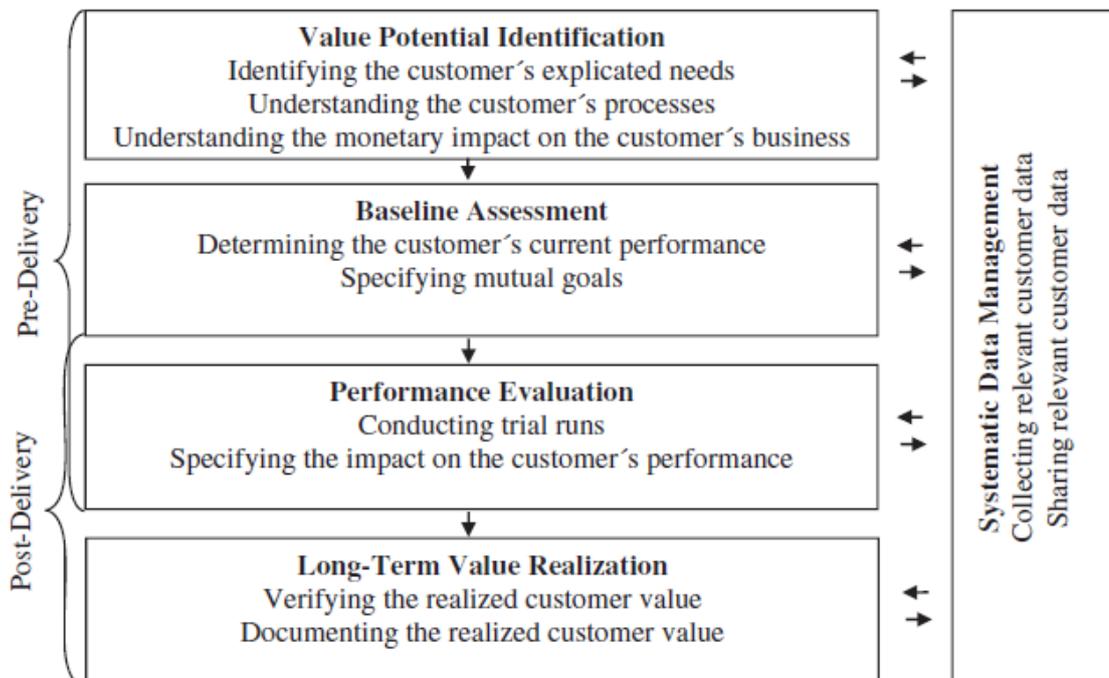


Figure 4.7 Framework for customer value assessment (Keränen and Jalkala, 2013)

The first key process, the value potential identification attempts to understand how a supplier can add value to its customer's business. Traditionally, it starts by identifying the customer's explicated needs, which sets the initial boundaries for defining customer value. However, sometimes customers are not able to express or specify their needs, and therefore understanding the customer's processes may reveal opportunities for value creation. Keränen and Jalkala (2013) emphasize that adding value to the

customers' businesses culminates eventually in reducing customers' costs or increasing their revenues. For that reason, understanding the financial implications for a customer's business is essential in order to demonstrate in monetary terms how the solution would improve the business. (Keränen and Jalkala 2013)

The second process, the baseline assessment, aims to understand a customer's current situation prior to deploying the supplier's offering. The procedure involves determining a customer's current performance so that the supplier is able to assess the impact of specific performance improvements. Keränen and Jalkala (2013) also note that at times the customer might overestimate or purposefully underestimate its current performance, so establishing a mutually agreed starting point helps to achieve desired performance improvements. This is usually followed by specifying mutual outcomes including technical and financial outcomes. The technical outcomes comprise increasing efficiency or productivity, whereas the financial outcomes consist of increasing cost savings or profitability. (Keränen and Jalkala 2013)

The performance evaluation is suggested as the third key process of the customer value assessment, which comprises the actual scope and size of the value impact on a customer's business. The process consists of conducting trial runs and specifying the value impact on a customer's performance. The trial runs demonstrate the improvement potential and give concrete evidence of the offer as well as enhance the supplier's own understanding on the value its offerings deliver in various customer applications. There are usually two options when to conduct the performance evaluation, either prior to the delivery as a pilot project or after during a specific evaluation period. It is elaborated that often offerings which have a major impact on the customer's core business such as turnkey plants or product lines, are evaluated prior to full deployment. While, less critical offerings to the core business are usually evaluated afterwards; these include, for example, equipment or process optimization services. (Keränen and Jalkala 2013)

The fourth key process includes the verification and documentation of the realized customer value. The process emphasizes the long-term value realization which ensures that the customer has actually received the promised customer value. The value verification should be a systematic on-going process and formally involve customers. However, due to limited resources and time, the systematic value verification is rarely

possible. One solution for more efficient value verification would be remote monitoring of technologies which would save resources of both the supplier and customer. The verified customer value can be documented, for example, in case studies, success stories, and joint articles which would describe the customer, the problem, and the supplier's offering as well as the benefits received by the customer. Once again the monetary benefits are emphasized even though the cases rarely specify the monetary value. (Keränen and Jalkala 2013)

The fifth and last key process, systematic data management, comprising collecting and sharing relevant customer data has been considered as an important but challenging process. Collecting customer data should be done from all customer contact points, to mention some specific sources such as meetings, negotiations, trial runs, and customers' production diaries. However, the obstacles for efficient data collection are, for example, the customer's willingness to share information, the scatter nature of the data collection in large organizations as different departments have their own routines and styles, and the lack of centralized procedures in an organization. As a result, relevant data may not spread across the organization because it remains in separate files or as tacit knowledge in someone's mind. According to Keränen and Jalkala (2013) overall, effective data management was considered central to customer value assessment, due to the need to collect and coordinate systemically a large amount of information to generate a detailed analysis for the customer on all promises made and actions taken. (Keränen and Jalkala 2013)

5. RESEARCH DESIGN AND METHODOLOGY

The following chapter introduces how the study is conducted and what kinds of research and data collection methods are used. The first part of the chapter describes the chosen research approach, design as well as the case. The second part explains the main data collection methods and how the data is analyzed. Finally, the reliability and validity of the study are assessed.

5.1 Research approach

The nature of this research is exploratory with the purpose of understanding and assessing a problem. In other words, the exploratory research is used for analyzing a problem situation, evaluating alternatives and discovering new ideas. (Sreejesh et al. 2014, 31) Saunders et al. (2009, 140) also add that there are three principal ways of conducting exploratory research including a search of the literature, interviewing 'experts' in the subject, and conducting focus group interviews. In case new data or insight appears, the researcher has to be willing to change the direction of the research. However, it provides with great flexibility and adaptability to change. (Saunders et al. 2009, 140) As the aim of this research is to identify potential value drivers of a new energy efficiency service by discovering the expectations and perceived value of building managers, the exploratory approach suits the study rather well.

5.2 Research design

Regarding this research, the qualitative methods are applied in order to gain a holistic understanding of the topic. According to Bryman and Bell (2007, 27) qualitative researchers aim at understanding different behaviors, values, and beliefs based on the existing research gap. The baseline for qualitative research is describing real-life phenomena, which are complex in nature. As the different, simultaneously happening events usually have an impact on each other, therefore, the aim of the qualitative research is to have a holistic approach and data is collected in real-life situations. (Hirsjärvi et al. 2009, 161)

More specifically the present study applies a single-case study method to capture the circumstances and conditions of a commonplace situation, also called a typical case

(Yin 2009, 48). In general, a case study research strategy means examining a single phenomenon or a small group of related incidents. The main characteristics of the case study method are, for instance, choosing one organization and studying the processes relating to the environment of the organization. In addition, most frequently the case study strategy is used in explanatory or exploratory research (Saunders et al. 2009, 146). The data is often collected from different sources such as observation, interviews, and from journals or other documents as well as researcher's own perceptions and impressions. (Hirsjärvi et al. 2009, 134-135) In case of using multiple of sources during the case study, triangulation of the data may be necessary. It means using different data collection techniques within one study. (Saunders et al. 2009, 146) In the present study, triangulation is not utilized as the data collection focuses on only one data collection technique, namely conducting semi-structured interviews.

Yin (2009, 50) identifies two types of designs for single case studies: the holistic design and the embedded design. To choose one over the other depends on the number of units to be analyzed. The holistic approach consists of analyzing one unit, for example analyzing an organization as a whole. On the contrary, the embedded design treats a number of sub-units within the organization. (Yin 2009, 50) Nevertheless, the data analysis for this research is based on the holistic design, as the purpose is to gain a holistic view of the topic at hand.

5.3 Case description

The case company and the topic were chosen based on personal interest and the recent attention given to energy related issues. According to Valtia (2015), buildings often have poor energy efficiency and maintenance, which is evident in the high-energy consumption and defunct building appliances and systems. However, for an ordinary housing cooperative with potentially limited financial resources, to invest in energy efficiency solutions might not be the first priority. It could be hard for the customer to realize the actual benefits and value of the service. Therefore, the research framework suits the case rather.

The company, Esaver Ltd. also called Valtia was founded in 2013. It is a young, growth-oriented SME delivering energy efficiency solutions for buildings. The company has differentiated itself from other providers by offering a new life-cycle service which contents is customized based on the customer's needs. The solutions to

improve the energy efficiency include, for instance, building automation systems, heat recovery, solar power, geo-energy, and lighting optimization. The service portfolio aims to provide the customer with a turnkey solution from building surveys and system installations to long-term monitoring and maintenance (figure 5.1). The company cooperates with a number of different subcontractors, which enable them to offer a life cycle service package. Currently the company evaluates the customer needs by surveying the building free of charge, as the customer may not be able to express the actual needs. However, the challenge is to take the building survey to the next level in order to make the customer interested in the solution.



Figure 5.1 Valtia's life cycle service (Valtia 2014)

In the website (Valtia 2015) the company lists the core values to be customer orientation, high quality, continuous development as well as saving energy and the environment. In a conversation on 23rd September 2014 the managing director, J. Niemi, described the value drivers the company wishes to uphold. These include, for example, a comprehensive way of thinking, genuine customer care, and considering the entirety of the customer's needs to ensure the best solution for the housing cooperative. From the customer-supplier relationship point-of-view, the most significant value drivers emphasize keeping the promises and working on-schedule. In other words, the company does not promise anything, such as energy savings, without hard facts to support the promise.

During the conversation, Niemi explained the benefits of Valtia's offering to comprise of energy savings and reliability on the fact that the building is monitored and maintained by someone. Decreasing building maintenance costs by preemptive damage control, and increased comfortability of living were also among the said benefits. However, the actual monetary benefits become concretized when the investment has been paid off. For building managers, the company's solutions bring added value in terms of them being able to work more efficiently.

Moreover, Niemi pointed out that in this field of business the costs should be considered as an investment with a certain payback period. The total customer costs depend on the target building, however the savings should be superior to the costs. When thinking of the other sacrifices such as used time and energy as well psychological effects, it is stated that Valtia's solutions are customer-friendly. The challenge is to make the customer understand the multiplicative effects of the benefits. In other words, make the customer realize the long-term monetary savings and increased comfortability of living over the price of the solution.

5.4 Data collection

The data is collected by using both primary and secondary data collection methods. The two main types of methods to collect primary data in qualitative research are the unstructured interview and the semi-structured interview. Other methods are, for example, participant observation, focus groups and group interviewing. (Bryman and Bell 2011, 465) Hirsjärvi et al. (2009, 205) state that interviews as a source of primary data are often chosen, especially if the topic is relatively unknown and researchers are not able to anticipate the interview answers.

5.4.1 Semi-structured interviews

Regarding this research study, semi-structured, face-to-face interviews are conducted for building managers. As many interviews as needed are conducted until the data becomes saturated. According to Bryman and Bell (2011, 467) semi-structured interviews typically consist of a list of questions on fairly specific topics, which is often referred as an interview guide. Nevertheless, the interviewee has a great deal of flexibility in how to reply the questions. Even though the questions may not follow the exact order outlined in the interview guide, all of the questions will be asked by using

similar wording during each interview. Furthermore, additional questions may come up based upon interviewees' answers. (Bryman and Bell 2011, 467)

The interviews will be audio recorded and transcribed enabling repeated and more thorough examination of the interviews. The downside of transcribing the interviews is the fact that it is very time-consuming and produces vast amount of data to be analyzed. (Bryman and Bell 2011, 483) During the data analyses different themes and unexpected issues are explored. The data is coded and analyzed based on relative themes.

5.4.2 Secondary data

According to Saunders et al. (2009, 256) secondary data includes both raw data and published summaries. The raw data refers to data that has not been processed much if at all. In addition, secondary data can be based on documentaries, multiple sources and surveys. (Saunders et al. 2009, 259) Regarding this study the sources of secondary data are, for example, business journals, scholarly articles, and theoretical publications. The electronic databases used include sites such as Emerald, ScienceDirect and EBSCO. In the present study, secondary data is primarily used in the theoretical discussion.

5.5 Reliability and validity

The reliability of the study can be assessed by evaluating the repeatability of the results. To ensure the reliability, the aim is to conduct as many interviews until new data does not appear. The validity of the study means how well the research method is able to measure the research objectives. In order to ensure the validity of the results, the research conditions are explained and analyzed in detail. For example, when conducting the interviews the surrounding conditions such as place, used time, and potential misconceptions, are covered in the analysis. (Hirsjärvi et al. 2009, 231)

6. RESULTS AND ANALYSIS

In this part of the study the results of the interviews are discussed and analyzed. First, the interview data is described in accordance with the interview outline. Then the data is analyzed in terms of identifying the potential value drivers considering the overall offering. Hence, the results of the interviews are used in exploring the various value drivers that could be implemented in the offering and taken into account during the customer-supplier relationship. One may find the semi-structured interview questions in the appendix 1.

6.1 Synopsis of the semi-structured interviews

The customers of Valtia are divided into three main groups: building managers, building maintenance firms, and constructors. In this study the focus is on the building managers who play an important role as the link between Valtia and the owners or residents of the buildings. The initial goal was to interview approximately ten building managers around the area of Lappeenranta. Due to time scheduling problems as well as reluctance of some potential interviewees to participate only seven interviews were conducted (table 2). However, after the fifth interview the data became rather saturated meaning that the number of interviews was optimal. The time period for each interview ranged from 35 to 70 minutes. It was surprising that some of the shorter interviews were in a sense more insightful, those building managers remained in the point and were straightforward with their answers. The interviews were audio recorded and then transcribed. The table 2 describes briefly each interviewee. It consists of their Id in this study, position in the company, where the company provides services as well as the date of the interview and the duration in minutes.

Table 2 Interviewees

Id	People interviewed	Provides services in:	Date	Duration
A	Building Manager	Lappeenranta, Imatra	02.12.2014	35
B	Building Manager, Managing Director	Lappeenranta, surrounding municipalities	02.12.2014	56
C	Technical Building Manager	Nationwide	08.12.2014	53
D	Building Manager	South Karelia	09.12.2014	50
E	Technical Building Manager	Lappeenranta	16.12.2014	65
F	Building Manager	Nationwide	17.12.2014	45
G	Building Manager	Nationwide	19.12.2014	70

The purpose of the interviews was to investigate how the building managers perceive energy efficiency of buildings in general and what types of solutions they are using or would prefer using. The interviews also considered some different aspects of the customer-supplier relationship, more specifically, what they expect from and value in a supplier. In order to find out how the topic at hand is perceived in different sized building managing agencies, the interviewees were contacted from small to countrywide firms. In this research a small firm operates only in the area of Lappeenranta and Imatra, whereas the larger firms have operations in multiple of towns in Finland. The interviews were conducted in the interviewee's premises, either in their office or in common area. In general, the office was a better choice in terms of less background noise.

The main challenge for receiving valuable data during each interview was to keep the discussion on topic. Occasionally the interviewees went off track by discussing building issues that were less relevant regarding this research study. In addition, some disturbances such people walking past, background music and ringing of the interviewee's mobile phone occurred during the interviews.

All the interviewees regard themselves as the advisers of housing cooperatives who present the potential solutions to the Board of Directors and the general meeting. They also competitive tender services and appliances, request for offers and ask for external consultation concerning building matters when necessary. In general, building managers

can be considered as the connecting link, or even the gatekeepers, between the housing cooperative and suppliers. However, the decision making of investments is up to the Board of Directors and the general meeting.

6.1.1 Current state of buildings

Based on the interviews it can be inferred that though there has been a larger number of complete renovations in the older buildings during the last ten years, only a minority of the changes have been solely about energy efficiency. However, the legislation and regulations set rather strict thresholds on how to take energy efficiency into consideration when conducting various renovations. For example, apartment specific water metering is required to be installed while conducting piping renovations as it has been proved to decrease water consumption. Especially, the renovations being eligible for subsidies often require some sort of energy efficiency improvements. (Interviewee, F)

The solutions that have been implemented specifically to enhance energy efficiency in buildings include, for example, exhaust air heat recovery systems, air source heat pumps, geothermal heating systems, and new heat exchangers. The interviewees (C and E) state that in new buildings the heat recovery solutions are installed as a part of the apartment specific ventilation system. Renewable energy is not used in any of the housing cooperatives even though it is mentioned that some individuals may classify heat recovery as renewable energy. The majority of the changes have, however, been done to maintain the overall condition of the building.

The interviewee (C) summarizes that approximately 40 % of their managed housing cooperatives have had some sort of energy efficiency solutions installed during the previous years. For example, they have renewed heat exchangers and thermostatic radiator valves, which have enabled them to control a constant temperature of 21 degrees Celsius. They have also added thermal insulations during facade renovations and installed replacement windows to improve the overall ambience of the buildings. However, they have not yet utilized the remote temperature control systems. Another interviewee (E) mentions enhancing water savings and renewing automation solutions as their previous major investments.

Similarly, the interviewee (D) explains that they have installed additional thermal

insulations, updated windows and done some minor adjustments. However, none of their housing cooperatives has heat recovery or building automation systems, and “the air ventilation works, God willing”. They have considered replacing the district heating to geothermal heating in some of the terraced houses, but the policies of the municipality (Taipalsaari) have prohibited the ground drilling. Any drilling activity would require a special permit and therefore can be considered as a major barrier for starting to utilize geothermal heat. Generally, the largest obstacle for implementing more energy efficient systems lies in their tenants’ willingness to invest in such solutions, often caused by the simple lack of sufficient knowledge of said technologies’ benefits.

6.1.2 Customer expectations and perceived value of energy efficiency in buildings

The starting point for the interviews was to investigate how familiar the interviewees are with the concept of energy efficiency solutions of buildings in general. The results revealed that all the building managers know more or less about the different solutions. Nonetheless, it seems that energy efficiency in buildings is still a somewhat new concept especially for smaller housing cooperatives with more limited resources. The building managing agencies being responsible for a large number of apartment buildings and terraced houses seem to have more experience of such solutions and therefore have more expectations of the topic at hand. The interviewee (F) states:

“These days the role (of energy efficiency) is emphasized, as we strive towards a cost effective higher quality living. [---] Every time you are able to cut energy costs, you can leverage that and use it to compensate the condominium payments or rents of the tenants, at the very least to prevent them from rising.” (Interviewee, F)

The interviewees recognize that the energy prices are constantly growing. For that reason, all of them consider energy efficiency important since it has a major potential of decreasing energy costs in buildings. The major costs of housing cooperatives that are mentioned comprise of heating, water consumption as well as the electricity. It is explained that energy efficiency is a part of the big picture that enables achieving cost savings. Even the small changes in the systems could have major effect on decreasing the energy expenses. It is not only about the devices implemented. The tenants, their behaviour as well as the structural side of the buildings all have their part in making the

entirety of the solution as energy efficient as possible. Through improving energy efficiency, the interviewee (A) explains that it may have a positive impact on the amount of the condominium payment, which is the main interest of the shareholders.

Changing the systems to be more energy efficient can be rationalized using several different factors. Whether the housing cooperative decides to invest depends upon the total costs of the investment, payback period, working life, and how the investment directly or indirectly affects the condominium payments. A major factor concerns the education level and general knowledge base of the Board of Directors and tenants. In addition, it is said that the type of the housing cooperative matters when attempting to get investment decisions through. One interviewee (D) divides them roughly into three distinct groups: (1) the old grandmothers, (2) the educated young people, and (3) the men over 65 years old. The first group is more traditional and may have difficulties to understand the value of energy efficiency solutions. The second group is easier to convince into investing in the building, whereas the third group is described as opinionated individuals with too much spare time. Based on the type of people living there, it can be inferred what kinds of investments are likely to go through. Often if elderly people form the Board of Directors, the investments have to be explained in very simple, nonprofessional terms. The interviewee (D) states:

“They (the attitudes) heavily depend upon the level of education among the Board of Directors. [---] There are so many different kinds of Boards and how the things proceed is entirely up to the build (of the Board).” (Interviewee, D)

Many housing cooperatives are reluctant to make large investments in energy efficiency due to not knowing the actual energy and cost savings they bring forth. If representatives of the providing firms were able to clearly demonstrate the potential impact and the degree of efficiency, it would encourage the building manager to propose the solution to the Board. In addition, a general lack of knowhow and interest from the Board of Directors’ perspective can prove to be a major obstacle. For a building manager it is easier to propose a potential energy efficiency solution if the initial idea came from a member of the Board or from a tenant of the building. In that case the proposal is more likely to be accepted by the Board and the general meeting. Overall, the housing cooperatives prefer on making minor scale improvements such as implementing additional thermal insulations, adjusting temperatures and upgrading

hallway lighting to support motion sensor technology. The interviewee (D) states:

“Of course it (energy efficiency) is important since it is such a significant portion of all costs the housing cooperative has, in fact it is the most prominent one. But there is much more to it, a number of small things to help decrease consumption.” (Interviewee, D)

Based on the interviews, the building managers have both decades old as well as relatively new buildings. Considering these older buildings with old technology and systems there is obviously room for improvement regarding the energy efficiency. For example, renovating heating systems or replacing the radiator thermostat valves could result in decreased district heating costs. Often the improvements are made when the working life of the old system has come to the end. One major challenge that was recognized is that some buildings prove to be in such bad shape that it would actually be financially preferable to demolish them instead of making large investments. Many buildings from the 1960s - 80s require major renovations such as repairing roofs, facades and pipes as well as changing new windows just to maintain their condition. Therefore, the housing cooperatives need to prioritize the imminent investments over energy efficiency solutions due to limited financial resources. When replacing the old systems and devices with new ones, their energy efficiency is taken into consideration. Regarding the older buildings, it is essentially important to estimate whether the investment would be cost-effective.

The Boards of the housing cooperatives often emphasize the economical side of energy efficient solutions. The characteristics of the device or the system itself are not as relevant. The factor that weighs more is the degree of efficiency of the solution and the potential payback period. The interviewee (B) considers that quite frequently the promised cost savings of the air source heat pumps and geothermal heating solutions are kind of utopistic thoughts. For that reason he suggests that the supplier should provide some kind of a follow-up on whether the promised savings have been achieved. In addition, the interviewee (F) emphasizes:

“The investments made must be financially sound, so that investments are not made just for the sake of being greener.” (Interviewee, F)

Two distinct factors were identified accelerating the decision making of investments.

These factors include the necessity for maintaining the building as well as sustaining the comfortability / healthiness of living. Nevertheless, the housing cooperatives rarely proactively respond to required renovations or replacements of old systems regardless of the recommendations made by the building manager. Often, only when something starts breaking down or falling apart it gets the necessary attention. Yet, tenants expect a comfortable standard of living, which is sustained, for example, by improving the indoor air quality through proper ventilation. Other factors that came up during interviews comprise of the age of the structures and systems, the costs of investment, annual budget, and subsidies. Special attention was given to the subsidies, which often seem to be the only way to encourage homeowners to take the necessary steps. Once the subsidies decrease, the reparations also diminish. Although the amount of subsidy per person may not be substantial, the psychological effect it has can be game breaking. The interviewee (B) also states:

“As it (the system) begins to reach the end of its life cycle and you notice it is deteriorating or breaking down, those are the reasons why investments are made.”

(Interviewee, B)

Regarding funding the investments, suppliers’ own funding models, however cheap, have proven not to be efficient in luring customers to heavily invest in improving the building. One reason is that housing cooperatives are able to get affordable loans from financing institutions. Another reason mentioned is the vast availability of different funding options such as leasing. The most suitable funding option is chosen based on the evaluation of its total costs. In addition, the payback period of investments is considered especially important as it should be put into perspective with the working life of the solution. In respect of energy efficiency solutions, one option could be paying back in accordance with the saved energy as stated in the following:

“Surely one of the options of funding could be that, talking about the energy efficiency investment in particular, the housing cooperative could pay the investment off the savings the solution provides. This equation could be something worth of trying.”

(Interviewee, B)

6.1.3 Potential solutions to improve energy efficiency in buildings

The interviews reveal a common factor on how the building managers would improve

the energy efficiency of the buildings. Heat recovery systems are not widely used yet but the interest towards acquiring such technologies seems to have peaked recently based on the interviewees' statements. A few of the respondents point out that controlling the temperature of the apartments is something they would definitely look into. Knowingly adjusting the temperature to be equal in the whole apartment complex would increase comfortability and save costs. The tenants could potentially adjust the in-house temperature should they choose to do so, but only within specific thresholds.

The interviewee (F) notes that the working life of an air source heat pump often proves out to be longer than the one of ground source heat pump due to lower utilization rate. This in turn may prove to be a decisive factor when comparing the payback periods between the two existing technologies. He (F) reminds that the heat recovery system has its problems. The technology better fits into apartment buildings where the number of heat outtakes stays reasonably low. The height of the building sets limits into how efficiently the technology can utilize the heat it recovers. The taller the building the more heat goes to waste on the way down without proper insulation. The technology used in heat recovery systems however has evolved so significantly during the past five years that the savings it produces are enough to make building owners consider installing it into buildings that have been built post 2010 (Interviewee B). The interviewee (C) points that the most favourable moment to improve the energy efficiency through installing new technologies is often during a renovation. Simply installing say, a heat recovery system, as a separate individual project can be too costly to consider.

To enhance the energy efficiency of lighting is one potential way to save costs, according to the interviewee A. Improving the working life of light bulbs by replacing them with LED-lamps and installing motions sensors in corridors to further lower the utilization rate is easy and affordable to put in order (Interviewee A). Moreover, even though apartment specific temperature measurements are not widely used, it would be a point-of-interest if it was possible to implement wirelessly. The interviewee (G) states:

“If it could be implemented through wireless technology, then I don’t see why not. Up until now, the contractors have failed to ensure me that the solution would work in practice. If they cannot guarantee it (working), then we will not use it. It would require concrete evidence.” (Interviewee, G)

The opinion of actualizing the comprehensive energy efficiency management divides the interviewees into two groups. Some mention the need for monitoring whereas the others say the education of tenants is the most significant element. Surprisingly, only one interviewee (A) suggests that updating the current systems would be the most important element of managing energy efficiency and decreasing their district heating costs. According to the interviewee (B) monitoring is the only way how they are able to get reasonable information out of the buildings. Currently their data is per building and received on monthly or yearly basis. In the case of monitoring temperatures, the interviewee (B) would prefer having real time apartment specific monitoring. On the other hand, the interviewee (D) states that there is no need for real time monitoring as it would not change the behaviour of their tenants. In addition, the interviewee (C) comments that real time monitoring would be desirable but not necessary due to limited time resources, they would not have time to follow them. On contrary, it is suggested that monitoring should be automated (interviewee B). The main reason why monitoring would be needed is stated as follows:

“Through monitoring we get our hands on the problem (right away), at the moment we cannot react until the tenant contacts us on the matter.” (Interviewee, B)

In organizations that manage a large number of buildings it seems that investments in automated monitoring have been essential to ensure efficient maintenance. It would be impossible to control the systems in buildings without having remote and automated monitoring (interviewee, E). The education of tenants further enables, among others, preventing overlapping functions such as simultaneous heating and cooling. Particularly in older buildings tenants cause the majority of the waste energy as they ventilate the apartments by having windows open for long periods of time. The interviewee (F) states:

“First they heat up and then they cool down, meaning that they keep the heating batteries on and as soon as it gets too warm they open the windows.” (Interviewee, F)

The goals for energy efficiency solutions that were mentioned during the interviews relate to the cost structure, comfortability of living as well as increased efficiency regarding buildings and time management. The most attention was given to the quality-price ratio, which needs to be balanced so that the housing cooperative is able to have real cost savings through the implemented solution. The achieved value should be

measurable, first of all, in euros, then in kilowatt hours per cubic meter. Goals that are more practical relate to the usability of the solution. In other words, it should be easy and simple to use even by a nonprofessional. It was also mentioned that it would be useful if the building managers were able to remotely control the system via computer, and so preempt and pinpoint unanticipated problems (Interviewee, C).

One major goal that was discussed relates to being able to measure just how much each apartment consumes, for example water, therefore being able to invoice the tenants based on the actual figures. However, in order to prevent for the data handling taking many working hours, the data transfer should be somehow automated. Another goal of the energy efficiency solutions could be producing information of tenants' energy consumption habits. If the information was based on their actual consumption figures, it would potentially affect their consumer behaviour, increasing their awareness of how they use energy and how they could save energy by making slight changes in their everyday lives. (Interviewee, E)

The results of the interviews reveal that the challenges preventing the implementation of energy efficient solutions are primarily financial and social. The financial challenges consist of the economic depression, unemployment, financial problems of people and reluctance to use money on something which value is hard to understand. They can also relate to the quality-prices ratio, more specifically being able to prove the time-period, which it takes for the benefits to exceed costs. In addition, the housing cooperative could perceive the investment too risky due to lack of knowledge and understanding. The interviewee (F) also notes that even requesting for an assessment of the required repairs may cost hundreds or even thousands of euros.

The social challenges include tenants' attitudes towards such solutions and the high bureaucracy of the decision-making in housing cooperatives. The only way to educate tenants is by informing them. In order to have an impact on their attitudes, they should be provided with an incentive such as promising a constant temperature or decreasing living costs in the long run. The other social issue regarding the bureaucratic decision making process tends to be more challenging as explained by the interviewee (B):

“Personally I would see the problem laying inside people’s attitudes and the heavy red tape within the housing cooperatives. There have been precedencies where even a good idea has faced a stone wall after a voting has taken place. All you need is a small

minority that objects the idea.” (Interviewee, B)

6.1.4 Lifecycle service package

The lifecycle service package designed to advance energy efficiency in buildings by providing the customer a comprehensive turnkey solution was well received by the majority of the interviewees. To get all the services from one supplier would substantially ease the building managers’ workload as it would decrease the number of different service providers. In smaller building managing agencies in which the technical skills and time resources can be limited, the initial surveying, building contract negotiations and offer requests are often outsourced to an external specialist. It is also mentioned that the maintenance after finalizing building projects tends to become a bit neglected even though maintenance firms are responsible for it. The interviewee (E) gives an example of the benefits:

“It (lifecycle service package) is something that has been missing and has definitely found its legitimate niche in the market. [---] They are very welcomed in, for example, a single housing cooperative, where the knowhow is close to none.” (Interviewee, E)

The minority was concerned about the total costs of such service package, whether the overall benefits would exceed the costs. Another concern relates to whether the housing cooperatives would see the value of it and how it would simplify their supplier structure. In addition, some housing cooperatives want to attain the lowest possible price for everything, therefore they would unlikely agree on purchasing all the services from one supplier. The value for smaller housing cooperatives was also questioned as follows:

“On smaller sights it (life cycle service package) would not be cost efficient at all. You need at least around 20 apartments to even begin to consider it.” (Interviewee, F)

6.1.5 Outsourcing monitoring and adjustments

The real time monitoring and adjustments of the building systems by an external provider divide the interviewees between two opinions. Those who have larger organizations and possess technical capability, already have similar systems in use. Therefore, they do not see the need for it. One interviewee (F) also says that it would not be credible if the monitoring system had an interface with the supplier. However,

for smaller building managing agencies, it would be beneficial if the supplier was responsible for the monitoring and adjustments. Currently the adjustments are done approximately once a year. In addition, it was emphasized that it would be beneficial if the adjustments were able to do via computer.

The current monitoring practices are not able to prevent the device damage even though it is quite rare that something breaks down. The building service companies are responsible for taking care of their condition. It is also mentioned that sometimes when a device is malfunctioning, the aim is to react quickly before it damages other functions. Some building managers are able to identify malfunctions promptly due to hour-based monitoring. In case of an anomaly, they receive a notice from the system. Not all of the building managing agencies use such system, therefore, the interviewee (B) claims they are always trying to catch the problem. If they were able to get some kind of a monitoring system, they could easier prevent the problems from occurring. In general, when they have a malfunctioning, it shows in the whole of building before they are able to fix it.

6.1.6 Outsourcing reporting and maintenance

The interviews revealed a major difference how well and easily the building managers are able to identify the variation in the energy consumption in the buildings. Some estimate the consumption based on the energy invoices or by requesting data from the energy companies. Therefore, reacting to fluctuations could be rather slow, whereas others are able to check the numbers on their computers. Usually the consumption reports are building-specific apart from water consumption, which can be apartment-specific.

Currently all building managers are not satisfied with the energy reports they are able to get. Usually the reporting is done on monthly basis, however, some building managers would prefer daily or hourly-based monitoring. The report would be automatically formed on weekly basis. One interviewee (B) describes the characteristics of a useful report:

“It would have to be visual, the kind that a person would easily understand. That’s the kind of report I have been looking for, a one that has exact averages for each apartment type. And then it would show (us) how the building fares compared to its peers. A

follow-up would be conducted on a monthly basis, so that I can count how much energy has been used on a single cubic meter. Then I can make some comparisons to the house next door that is smaller in size. When you see that the difference between your house and the house next door is large, it serves as a wakeup call that something is wrong.” (Interviewee, B)

The maintenance of the building service technology in the housing cooperatives is usually arranged through external building service companies. The smaller housing cooperatives such as terraced buildings often manage by themselves. The benefits of outsourcing the monitoring and maintenance building service technology comprise of reliability on the fact that the systems work, capability of preempting device damage, as well as the ability to remotely control the systems. Smaller organizations would also benefit from the skills and knowhow provided by the supplier. However, it was emphasized that the gained benefits should be demonstrated also in financial terms. The interviewee (A) states:

“(Then) it would be properly monitored, because the service provider is a professional. The building service maintenance personnel are capable, but lack the cutting edge knowhow.” (Interviewee, A)

The challenges of outsourcing comprise of potentially increased costs, the actual execution and implementation of the system as well as the flow of information from the supplier to the customer. Moreover, human factors and incapability to ask for things that would bring the most benefits are stated as other challenges. In that case, the role of initial surveying and planning are important. The interview (D) questioned whether an external operator could successfully manage the building service technology without knowing the tenant structure of the building. For example, if a family with children moves in, the water consumption is likely to increase which would alarm the system. Another interviewee (E) explains that the monitoring system is quite a central tool for them, therefore outsourcing monitoring operations would be like giving up a car and start using a bicycle.

6.1.7 Supportive service interface

The interviewees stand on different grounds regarding the necessity of an online-based supportive service interface. The larger building managing agencies are already using

different forms of software and online applications, such as the Tampuuri-portal, to manage and monitor the building complexes. Some larger building managing agencies invest heavily in having an online-based network of monitoring. An online-based supportive service interface is used as a service that provides the tenants and the Board members with the possibility to receive up-to-date information regarding their building and its premises (Interviewee, C).

In buildings that do not utilize building maintenance services, with such a portal they could remotely adjust the commands of the heat distribution room without the need of physically visiting the location. One could simply check the daily energy consumption on the computer to see how much electricity and energy is used per hour. (Interviewee, B) Albeit having its definite benefits, some building managers do not see the service interface as a tool they would need. The building managers already receive a monthly basis report from the maintenance service firm. The data is then entered manually into the system. The energy companies provide their own reports that enable to see the energy consumption at a relatively short delay.

6.1.8 Customer-Supplier relationship

The expected qualities of a potential supplier can be categorized into expertise and reliability. The expertise consists of being able to explain the solution in such simple terms that enable the nonprofessional customers to see the value. The ability to genuinely discuss the problems of the building is associated with the concept of expertise. The reliability involves being able to demonstrate achievable energy and cost savings and clearly show what it involves and how it works. Local presence is also associated with reliability. If the supplier is able to appear as expertised and is considered as reliable, it may outweigh the price of the solution. On the other hand, it is mentioned that the supplier should not overprice the solution as it would diminish reliability. One interviewee (C) states:

“The supplier must be honest and accountable in his service offering, showing concrete proof of benefits and control over his product.” (Interviewee, C)

The elements that are valued in the customer-supplier relationship consist of two-way communication, mutual reliability and real time reporting. The communication practices divide the interviewees into two groups. The first expects and values active

communication with the customer. It is also considered essential that they have someone to contact in case of requests or problems. The second group points out that generally the building managers have rather limited time resources. For that reason, contacting the customer should not be too frequent. The supplier should also acknowledge that the decision-making process in a housing cooperative has multiple phases and could take a long period-of-time. However, the customer-supplier relationship should be based on mutual information sharing which enables building trust and reliability between the parties. The real time reporting refers to sourcing information through web-based solutions so that the customer is able to find data on their own terms. Regarding the customer-supplier interaction, one interviewee (F) prefers partnership-based cooperation:

“[---]...active, constant communication, even when we are not actively engaging in trade, informing of new services and updates. Personally we favor anything partner-based, because they are more open.” (Interviewee, F)

Some aspects that the supplier should take into consideration when developing the customer-supplier relationship were also brought up during the interviews. One interviewee (F) states that the supplier should pay attention to how to charge of the service. Often supplying firms are not clear enough how large amount of the saved costs end up in the supplier's pockets. For example, if the solution is able to save up to 30% of energy costs and 20% of the amount is charged by the supplier. Another interviewee (B) emphasizes the importance of the sales pitch. It should be as clear and simple as possible and include references as well as achieved results from similar buildings. The need for references appeared in most of the interviews as they facilitate the decision-making process of the housing cooperative and demonstrate reliability.

6.1.9 Conclusions of interviews

According to the research many housing cooperatives have not invested specifically in energy efficiency solutions as an investment on its own. Commonly, the energy efficiency is taken into account during other on-going renovations or building maintenance operations. The major barriers for energy efficiency are stated to be the financial perspective and the insufficient knowledge of the decision-makers. Particularly the housing cooperatives of older buildings often need to prioritize the most urgent investments over energy efficiency. In addition, it is debated that often the

promised savings of energy efficiency solutions are unrealistic or they have not been demonstrated accurately enough. It is also emphasized that small changes such as preventing the simultaneous heating and cooling, may have major difference in energy consumption. Therefore, there is apparent reluctance to invest in a costly system, as the value is hard to understand.

The research revealed that the main expectations the potential customers have consist of economic and technological expectations. However, the expected characteristics of the solutions are claimed to be less relevant compared to the degree of efficiency and the potential payback period. The energy and costs savings are regarded as highly important, and therefore it is expected to be carefully monitored by the suppliers. Even though the housing cooperatives want to maintain the condition of the buildings, often investment decisions are made when the working life of a certain device is closing to its end-of-life. In general, the housing cooperatives are more willing to invest in minor scale energy efficiency solutions. In addition, as mentioned it is more favorable to conduct the installation during other renovations instead of as its own project. Based on the interviews replacing current systems in order to increase energy efficiency and decrease the district heating costs is not the most significant element in the comprehensive energy efficiency management. The building managers see the monitoring of energy usage and educating tenants to be a more effective way.

Based on the research, the main expected and perceived benefits consist of, among others, reaching the cost-effectiveness in a reasonable timeline, increasing chances to affect their own energy consumption as well as improving the overall usability of the building systems via remote control. Providing the building manager with the ability to use the data to compare the consumption figures in different buildings and thereby work out how to improve their energy efficiency, is considered as a major benefit of the solution. Concerning the lifecycle service one of the perceived benefits is the need for managing a fewer number of suppliers as all the services can be received from one supplier. It would have the potential of substantially decreasing the workload of the building manager. The expected benefits for the tenants consist of lower energy costs and/or the indirect effect on reducing other costs such as the condominium payments or rents. In addition to the potential cost savings, the tenants expect a comfortable standard of living. The interpersonal expectations that were emphasized during the interviews include being able to promptly interact with a familiar and expertised contact person in

case of a problem or inquiry.

On the other hand, the expected and perceived sacrifices the customer would face when investing in energy efficiency comprise not only the overall cost of the solution but also the time and effort used in the purchase process. It is emphasized that building managers' time resources are rather limited which needs to be taken into consideration if frequently contacting the customer. Another major concern the building managers have considers the actual amount of the cost savings being paid to the supplier.

6.2 Value drivers of Valtia's offering

In the present part of the study, the collected data is coded in accordance with the theoretical discussion on value drivers namely grounded on the Customer Value Triad (Naumann 1994, 17, 28) and Lapierre's (2000) study on price-, service- and relationship related value drivers. Based on the coding the data is combined in specific themes that discuss the various value drivers in terms of product-, service-, price- and relationship related value drivers.

6.2.1 Product related value drivers

The customers evaluate economic, functional and psychological value of a product or service (Gupta and Lehmann 2006). However, the research revealed that the main customer value sources regard the economic and functional value. Relating to this, the first (1) the product related value driver theme consists of the situations in which customers would gain notable value of the product. In addition, as it varies how customers perceive value of a certain product based on their diverse personal values, needs and preferences, as well as based on their financial resources (Ravald and Grönroos 1996), the second (2) theme considers the factors that do/do not support the necessity of the product. Finally, the third (3) theme consists of the expected and augmented elements of the product, as it provides a more comprehensive view to the customer benefits and values regarding the overall offer. It should be clarified that in the present analyses the notion of product means the energy efficiency solutions of buildings in general. The reason for discussing the product on a more general level is due to the wide range of different kinds of solutions.

First, the data is analyzed based on the theme: the situations in which customers would gain the most value of the product. The supplier should carefully pinpoint the target

segments to avoid using too much time and other resources on housing projects that are void in terms of potential score. It is emphasized by Gupta and Lehmann (2006) that the fundamental source of value in business-to-business context is the economic benefit a customer derives in use. Similarly, in this case it is highly important that the housing cooperative is able to gain economic value from installing the energy efficiency solution. However, as housing cooperatives are primarily concerned about maintaining the overall condition of the building, the customer needs to perceive the solution as a part of the necessary maintenance, not only as bringing economic value. Generally, in housing cooperatives all the costs, e.g. installing a heat recovery system, have to be justified. For that reason targeting the buildings with upcoming major renovations would increase the probability of the customer to realize the justifiable opportunity for energy efficiency enhancements. Besides, regarding the tenants during major renovations the energy efficiency solution would be convenient to implement without causing additional disturbance.

For the sake of being credible, when considering potential candidates for new projects, the supplier should pay attention to the working life of the product and calculate whether the system is actually beneficial to install to said project. It was mentioned in the interviews that some buildings are in such bad condition that it is not worth making large investments in them due to the payback period-working life ratio. Therefore, the supplier should ensure that the payback period and the working life of the solutions are in line with the remaining life of the building, or offer an alternative solution that is more suitable for the building. Even though some old buildings might not be worth targeting with comprehensive solutions, in many cases the energy efficiency solutions may provide high value due to the possible lack of energy efficiency systems, existing systems at the end of the life cycle and inefficient heat control compared to newer buildings. In short, the situations in which housing cooperatives would gain the notable value of the product include buildings with upcoming renovations as well as older and newer buildings with inefficient systems. The smaller building managing agencies with limited resources and potentially insufficient knowhow would benefit from the life cycle service in case the expenses inclined are reasonable.

The second theme is strongly connected to the concept of trade-off between customer benefits and sacrifices discussed by Evans (2002), Lapierre (2000), Monroe (1990), Zeithaml (1988) and Woodruff (1997). It involves the factors that do/do not support the

necessity of the product. One of the main factors that appeared during the interviews considered the constant rise of the energy prices on the market, which have also alerted the building managers to keep their eyes open for a potential product (solution) that provides stable and fixed energy savings. In other words, based on the interviews it is evident that there is a need for energy efficiency solutions. However, if the potential product does not achieve the promised/reasonable energy and/or cost savings in the long term, the customer may feel betrayed. Even though the small changes in the systems and tenants living habits can have a major potential of decreasing energy costs in the buildings, the savings the solution provides must be superior to others. Otherwise, it may be hard to justify the installation of major and costly systems. In addition, customers often balance the benefits between different products based on the payback periods. This means that in order for the company to better compete with other solutions (to the same problem), it must ensure that its solutions quality meets the standards that the price sets.

It has been proven that there is definitely room for improvement in terms of energy efficiency especially in the older buildings. The fact that this has been recognized means better potential to reach out to housing cooperatives with such buildings. The company should take into consideration the type and structure of the building when targeting potential customers. Especially in case of heat recovery systems, due to the nature of the technology it is highly recommendable for the company to intentionally search and target apartment buildings as potential customers. The problem with higher apartment buildings is that they let more heat go to waste on the way down (Interviewee G). If the company could provide a sound solution to this problem by making sure the product exceedingly lowers the amount of energy waste, it would have major impact on the payback period. This in turn would make the solution far more favorable in the eyes of the customers.

The benefit the lifecycle solution provides, according to some building managers, is that it would simplify their supplier structure. This can prove to be a powerful marketing tool, as especially the smaller building managing agencies often suffer from the lack of time. Having the supplier of the solution also take care of the maintenance, while providing an easy-to-use online interface to help building managers track and follow their buildings is preferable to many. Some building managers expressed their concern regarding the privacy. In their eyes having the supplier take care of everything including

the monitoring would cause a conflict of interest. They see the supplier's motivation to establish itself as a risk, because it would increase the likelihood that the supplier would publish the customer companies' records in hopes of using them as a reference to get new customers. The solution to this dilemma would be to include a clause into the signed deal to prohibit such activity, should the customers choose to do so.

The interviews also revealed a major difference in how well the building managers are able to track variations in energy consumption. At the same time majority appreciated the possibility of being able to closely and accurately monitor the building's energy consumption. If the supplier were able to provide an apartment specific energy consumption report, it would work as a major bargaining chip to lure building managers to consider recommending the solution to the Board of Directors.

The third theme discusses the expected and augmented elements of the product. As explained by Payne (2006, 105), the expected elements set the minimum purchasing conditions for the product, whereas the augmented elements provide benefits that are beyond customers' expectations. First of all, customers (tenants) value savings over product attributes. It means that the characteristics of the device or the system itself are not as relevant. The company must prove above all else, that their solution provides sustained and considerable savings. Therefore, the most important attribute the solution has is in fact how well it saves the customer's money. Since the energy efficiency is such an important factor in cutting costs, replacing old devices with new ones or updating the building with new solutions, it always includes the process of evaluating the product. In order to be competitive, the solution the company provides must be more or equally cost-effective as the alternatives from competitors. Failing to meet this standard usually means losing the race before even having the chance to impress the customers with the actual attributes. The working life of the solution must be long enough to ensure that the system produces savings even after the customer has paid back the initial investment.

In addition, the customers wish that should they choose to install e.g. a heat recovery system into their building, the actual execution and implementation of the solution would be seamless. This means that the company has to give an expression that choosing their product would not cause any harm for the customers. Installing the system would happen on schedule, work as intended and provide all the benefits

promised. In other words, the company needs 1) a truly working product and 2) references from similar customers to ensure it is safe to put trust on them. Special attention was given to make sure that the solution provided fits the older building. If the solution is only partially compatible with the structure of the building, the company cannot guarantee it to produce as much savings.

The customer does not only expect economic value from the product (solution) but also increased comfortability of living. This includes, for example, better indoor air quality, steady room temperature as well as increased availability of data concerning the energy consumption habits. Based on the interviews the building managers would also expect to have a familiar contact person in the company who would be easily reachable. Another expected element considers the reasonable expenses of the product implementation and service. Naturally, in the long term the customer would expect the economic value of the investment to be greater than the expenses.

The augmented elements that were revealed during the interviews concern mainly the pre-sale and after-sales situations. The first regards the costs of initial surveying of the building's condition. By offering free or low cost initial surveying and report, the supplier is likely to arouse interest towards the company among prospective customers. It would lower the barrier to learn more about the company's products and services. However, it holds a risk of conducting redundant work and usage of resources in case the investment in the housing cooperative does not proceed. The second augmented element regards a follow-up service to ensure the promised energy savings are being achieved. The company could place a guarantee for reaching a certain level of savings according to the condition of the building, which would make it convenient for the supplier as well as the customer to follow. Logically, this means that the company would have to have substantial amount of experience in order to fully be able to gauge the exact limits to justify such actions. In case the savings are not achieved as guaranteed the supplier could give discount of the solution within the payback period. However, this holds a risk of misbehavior or ignorance by the tenants, which could affect the achievable energy savings. For example, if the tenant keeps windows open while trying to maintain the steady room temperature. Therefore, the systems should be as automated and independent as possible in order to prevent the interruption from the tenants' behalf.

The elements, which are expected by some customers can be augmented by others. Therefore understanding the customer should be a principle goal. (Levitt, 1980) It does not only mean conducting an initial survey of the building's condition but also discussing the customer's expectations with the representatives of the housing cooperative. In the following a set of potentially expected elements concerning the practical side of the solutions are presented:

1. Automated data handling process to reduce manual data transfer and working hours
2. Easy-to-use, visual and understandable software
3. Ability to measure how much each apartment consumes and invoice the tenants based on the actual figures
4. Ability to check the real-time figures on computer
5. Ability to check exact averages for each apartment type
6. Ability to show how the building fares compared to similar buildings
7. Ability to count how much energy has been used
8. Ability to make comparisons between different apartment complexes
9. Reliability on the fact that the systems work, capability of preempting device damage, as well as the ability to remotely control the systems

6.2.2 Service related value drivers

In line with the service gap model (Parasuraman et al. 1985) the main goal of service value drivers is to close the gaps between the supplier's and customers' expectations and perceptions of the service level. Therefore, the first (1) theme comprises the determinants affecting the customers' expectations and perceptions of the service quality. The second (2) theme involves the attributes and features of the service that increase the service quality perceived by customers. These can be adapted to the different phases of the service process such as presale, transaction and post-sale services.

The first theme considers the determinants affecting the service quality in order to meet the customer expectations. Parasuraman et al. (1985) enumerate these determinants to include reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. According to the research, the utmost determinant is to ensure that the supplier understands and interprets customers' needs and wants correctly in order to make the service appealing to the

prospective customer. Say, the lifecycle service package would decrease managing of a number of different service providers, and therefore would ease the building managers' workload. However, not all the housing cooperatives are interested in such service due to potentially vast expenses and reluctance to outsource certain activities. For example, some building managers question whether an external operator could successfully manage the building service technology without knowing the tenant build of the buildings. By understanding the prospective customer, the supplier is able to focus its service provision to better suit the customer's needs. For instance, larger building managing agencies are more reluctant to outsource the monitoring and adjustments of their customer buildings' systems, whereas, the smaller agencies with fewer resources would benefit from such service. Smaller organizations would also benefit from the skills and knowhow provided by the supplier.

Based on the research another major determinant of the service is communication since it affects customers' expectations and perceptions. Communication practices involve all the interactions between the supplier and the customer such as personal selling, marketing campaigns, and customers' evaluations of the service etc. However, human factors and incapability from the customers' perspective to ask for things that would bring the most benefits are stated as challenges. Therefore, the role of initial surveying and planning is important in order to understand the customer's needs even in situations where the customer himself is incapable of saying them aloud. The company must carefully listen to the customer and adjust their service offering to suit the customer's best interest.

The third determinant combines communication, credibility and reliability. In this case, their role is emphasized during the presale services in terms of sales pitch. In other words, the role of a clear sales pitch with layman terms is essential when selling the idea of the service to the prospective customer. For instance, only some of the building complexes the building managers overlook have utilized the remote temperature control systems. This means that in order for the company to be able to exercise their business strategy of charging for the services provided, they first must sell the idea of having a remote controlled system to the customers. In addition, it was highly appreciated if the supplier provided the customer with personal service. In other words, the customer would have a face in the company who would be contacted in case of inquiries or questions. As a result, the supplier's contact person would become acquainted with the

building managers and their customer buildings. Besides, having a familiar face in the company would lower the barrier for deeper cooperation or would advocate for further projects.

The second theme discusses the attributes and features of the service, which are regarded by Monroe (1991) as a part of the perceived benefits. The interviewees brought up the apparent benefit of being able to cut energy costs, by implying that it could be used as leverage to potentially lower the condominium payments and rents of the tenants. This in turn means that, should the product manage to produce those savings, it can be used as a marketing tool for the company listed as an “attribute” of the product and its services. As mentioned earlier, the factors that weigh the most are the degree of efficiency of the solution and the potential payback period. Based on the interviewee statements it can be inferred that quite often the promised cost savings do not actualize, which in turn leads to disbelief that such a system would work. This means that it is essential for the company to provide a way for the customers to track their savings through an attribute within the service itself. This would work as an assurance and boost the company’s reputation.

During the interviews the buildings managers disclosed some of the specific attributes they would appreciate in the service delivery. First of all, the provided service solution should be accurate and precise meaning that the contents and involved costs are clearly demonstrated, the supplier is reliable and works according to the schedule, and the achieved value is measurable in euros as well as in kilowatt hours per cubic meter. In addition, it was highlighted that the only way to educate tenants about the energy consumption is by informing them. To encourage tenants to live more energy efficiently the system could produce information about their consumption habits. It would also enable invoicing based on the actual figures and work as a motivator for the tenants to consider their energy consumption habits.

An attribute the building managers would value is the possibility of having the system function entirely through a wireless network. This would greatly ease the building manager’s workload, enabling him to monitor the apartments remotely. However, the building managers greatly question the reliability of such solution. It would be a major asset for the supplier if it was able to guarantee that their wireless solution would not only work reliably, but would also produce reliable data. Based on the comments it is

clear that this is one of the most decisive factors to consider.

The need for monitoring is cited as a significant element in actualizing the comprehensive energy efficiency management. Monitoring seems to be the only way to be able to get reasonable data out of the buildings. Currently it is common to have the data received on a monthly or yearly basis and it is only provided by per building. The majority if not all of the building managers would prefer an apartment-specific monitoring. The real-time monitoring would enable the building managers to react on issues such as broken machinery quicker. Some of the interviewees pointed out that they do not have enough time to monitor the buildings. From this it can be concluded that not only should the company make sure that their solution provides apartment-specific real-time information, it would also have to be either completely automated or controlled and monitored by the service provider.

Controlling the temperature of the apartments separately is something the building managers value. By adjusting the temperature to be equal in the whole apartment complex would increase comfortability and save costs. It seems that it would be of the company's best interest to make sure that their product's services enable this. The tenants would be able to adjust their in-house temperature, but only within certain thresholds. Having the same controlled temperature would also potentially solve some of the problems the older buildings have with insulation. If one of the apartments had a bad insulation, the system would force the temperature to rise to the same level as in the other apartments. This would ensure that the tenant would have a pleasant living environment. Should the system also have a way of tracking energy consumption, it would indicate the building manager that there is something to be fixed in that specific apartment. The energy consumption in that apartment would simply be much higher than in the others.

6.2.3 Price related value drivers

According to the research, there is a small discrepancy between how the customers see the value of energy efficiency and whether they are actually willing to invest into it. This may indicate that the prospective customer evaluates the costs to be greater than all the benefits as explained by Kotler and Keller (2012, 147). It means that the arguments made to advocate the necessity of the solution must be primarily based upon the long-term monetary benefit the customer would gain from it. The monetary benefit is

compared to the transaction and expected life-cycle costs. The actual price is not only a financial sacrifice but may also prevent other activities and forgo alternative solutions (Naumann 1994, 115-118). However, regarding the price the customers (building managers) are mainly concerned about the payback period and the quality-price ratio. The price must therefore accurately reflect the service received. Overpricing the product may not reflect the actual working life of the product and can cause the supplier to seem dishonest in the eyes of the Board. Therefore, the price-related value driver themes comprise of (1) the overall price of the solution and related service and (2) value-adding pricing elements.

The quality-price ratio is weighed based on how fast the solution can provide real time savings for tenants. Therefore, it is essential that the pricing is at a level where the customer feels he/she is not going to have wait for too long to receive the actual benefit. If the provider is able to prove itself as a reliable and expertised company, the chances to be able to negotiate about the price multiply. Therefore, it is essential that the company has the answers to all and any questions asked by the Board of Directors, including accurate cost models. The price of installing an entire solution is usually considered as too costly to execute on its own. To be able to better lure customers to invest into the system, the supplier should target, for example, apartment complexes that are undergoing renovation. In turn, the company should disregard any buildings that are closing the end of their life cycle, for the price of the solution far exceeds the monetary benefit the customers would gain from it.

Ultimately, customer value is determined through a trade-off between expected benefits and expected sacrifices. In other words, customer value can be enhanced by increasing benefits while keeping sacrifices constant or increasing benefits faster than sacrifices. (Naumann 1994, 115 – 118) However, in this case the pricing elements that are likely to add value include e.g. a clear price presentation and certain psychological factors. Even though it is highly important to set an optimal price but another issue is demonstrating clearly enough the cost structure of the solution and service. It reflects the overall benefits and sacrifices the customer would attain from the solution. The customer would especially expect to know how much of the potential savings will end up to the supplier. When making an offer to the customer it needs to include a clear presentation of the price, achieved savings in similar reference buildings and how much economic value the customer would potentially gain from the solutions.

During the interviews it was revealed that the subsidies the housing cooperatives receive for renovations may have a significant psychological effect even if the amount per one tenant was not substantial. It was also said that as the amount of subsidies decrease also the number of investments diminish. Therefore, psychological aspect of the pricing would be something to consider when setting up prices in terms of increasing the number perceived benefits. For example, an optional pricing strategy for the energy efficiency investments would be, fully or partially, paying off the investment from the savings achieved. It would guarantee the customer that the solution is likely to improve the energy efficiency of the building with clear economic value. It would also lower the barrier to allow implementing the solution into the building. However, it would increase the supplier's risk of receiving the payment of the solution.

6.2.4 Relationship related value drivers

Considering the relationship aspect the main challenge is not only to sell the idea to the building manager but also to the Board of Directors of the housing cooperatives who may have varying knowledge base due to different professional backgrounds and interests. One key element to establish a customer-supplier relationship is mutual trust (Godson 2009, 42), in this case often especially with the building managers who represent the housing cooperatives. The relationship-related value drivers have been divided into the following themes (1) expected supplier qualities, (2) valued customer-supplier relationship elements, and (3) the development of the relationship.

Regarding relationship value, commitment and satisfaction have a direct connection on the increased loyalty (Gil-Saura et al. 2009). On the other hand, based on the interviews the most valued expected supplier qualities are expertise and reliability. To demonstrate expertise the supplier should be able to present the product in simple terms with evidence of the results so that not only the building manager understands but also the Board. The prospective customer would expect the supplier to understand the needs and systems of different kinds of buildings, which are associated with the concept of expertise. From the perspective of a prospective customer, expertise means foremost compatibility up to the level of perfection. Any and all features associated with the service package would have to be compatible and thought through to maximize customer's financial gain. In this sense, the level of expertise reflects evidence of concrete and direct savings accumulated through the process of implementing and

executing the service package in the best way possible. From the perspective of selling the idea of investing in the service, expertise works as a base of credibility.

Reliability represents the ability to show references of buildings that already use the service. The longer the timeframe of those references the better. Time is an important factor, as it often works against the company by uncovering unexpected technical and service-related issues. This in turn eats away the reliability of the company's service. The longer phases the company can prove its service works reliably, the better. Finding suitable customers for reference can pose a major challenge for a company that is only just planning to hit the market. Newer references can work to the company's advantage too, if the service package has been successful at cutting down expenses right from the beginning. It is highly important to demonstrate achievable energy and cost savings as soon as possible. A young company needs success stories to share and use as reference to a new generation of prospecting customers. Among the interviews, the importance of local presence was pointed out and associated directly with reliability. It may prove useful for a start-up company to focus on creating a tighter network of customers at start that it can reliably serve and manage.

In customer value literature learning from customer expectations and requirements, establishing mutual trust, and adding a personal touch to customer interactions are the foundation of customer-supplier relationships (Godson 2009, 42). However, regarding the second theme, the research revealed that one of the most valued elements in the customer-supplier relationship is two-way communication, which is the baseline for creating mutual trust and sense of reliability. The customer would expect to have a contact person to whom to call in case of questions or enquiries. In addition, the customer would appreciate semi-frequent contacting to maintain the customer-supplier relationship and inform of new products and services. However, the supplier needs to acknowledge that building managers tend to have rather limited time resources and the decision-making process in housing cooperatives has multiple phases. For that reason, the customer contacts should be carefully planned according to the potential needs or interests of the customer.

Another important element regarding the customer-supplier relationship is providing a follow-up service to ensure that the promised cost and energy savings have been accomplished. It is of utmost importance should the supplier wish to build a deeper

connection with the customers and increase their chances on attaining similar projects in the future. Gaining trust requires definitive and measurable results that the supplier can present to the customers in a form they can easily interpret. Firstly, the supplier should ascertain that their contact person within the company is always equipped with up-to-date data to present to the customers. Secondly, the supplier should build a template form in which the data is shared with the customer. These two factors combined will secure satisfactory results for both parties.

The third theme considers how to develop the established customer-supplier relationships. It involves reinforcing the current relationships and an effective damage control. Based on the conducted interviews the customers value interactive customer-supplier relationships. Therefore, the reinforcement consists of creating and enhancing of a mutual vision regarding the long-term goal of the customer-supplier relationship. It would enable the supplier to understand better the customer's expectations and strengthen the commitment to the service from both parties. In practice, it would involve discussing all aspects of the service proposition as well as customer's enquiries in order to achieve an agreement of the goal. Accomplishing the mutual vision would require close cooperation with the customer as well as with the supplier's subcontractors. Another chance to reinforce the customer-supplier relationship is by making the customer feel like being a part of the brand. It could be done, for example, by creating a mobile application for the use of the final customers in which they could follow their energy and water consumption and possibly adjust the room temperature. In addition, the application could give tips on how to save energy in their daily lives and calculate the average savings in euros.

As discussed earlier the challenges preventing the implementation of energy efficiency solutions are primarily financial and social. As revealed in the research the main social challenges include tenants' (and the Board of Directors') attitudes towards energy efficiency solutions and the high level of bureaucracy in housing companies. Unfortunately, the supplier cannot decrease the level of bureaucracy but in can indirectly influence the tenants' attitudes by focusing on methods how to educate them. The first challenge is to convince the building manager to be the intermediary in the process as the company may not be able to approach the tenants of the housing cooperatives. As the tenants can be educated only by informing them, the information provided should be as close to their lives as possible to increase their interest towards

the issue. Meaning that the tenants should be able to, for example, receive an calculation of their current energy usage as well as a comparison to a situation with an improved solution. In this case a mobile application would be an effective tool for the tenant to learn more about the solutions and receive accurate information about their consumption habits and how they could be improved. It would arouse interest towards the company's service solutions and in the best possible situation would encourage them to demand for the service package.

The effective damage control requires a quick response from the supplier, for instance, in case of device malfunctions or dissatisfied customers. In a desirable situation, the supplier could conduct preemptive damage control to avoid any inconvenience for the customer. In practice, the damage control feature would involve a series of software protocols that would initiate under certain specific conditions. When the system detects a sudden anomaly in the data the building produces, it would automatically try to locate the cause. The preemptive damage control- feature would then send a message to the building manager informing him of the possible problem he may face in the future. As for the tenant's perspective, the preemptive damage control-feature would work in synchronization with the mobile application helping the tenants to track their own apartment's energy consumption. After a sudden peak at the energy consumption levels, the system would send a message to the tenant asking if everything was in order. The tenant would then be able to simply use the "notify the supplier"- feature built within the mobile application to inform the supplier and the building manager of any possible problems.

7. CONCLUSIONS

In the present chapter the key findings of the study and managerial implications are presented by mirroring the results to the research objectives. This is followed by the theoretical contribution as well as reliability and validity of the study. Finally, the conclusions elaborate the major research limitations and give some suggestions for further research.

7.1 Key findings

The research revealed that the customer expectations are connected to being able to define specific value drivers, which the target customers would perceive the most valuable in their current situation. As Logman (2013) points out the purpose is not to identify all the potential value drivers but the dominant ones. Therefore, the emphasis in this research is also on the dominant value drivers, which were frequently pointed out during the interviews. These value drivers are decomposed into benefits and sacrifices as recommended by Lapierre (2000) and Logman (2013). As the customer evaluates what is or is not good value, it is essential to understand the customer expectations and perceptions.

In business context, the expectations can be both official and unofficial as stated by Järvelin (2001). In case the expectations need to be valued due to their large number, the supplier should prioritize first the explicitly or implicitly expressed goals of the housing cooperative and then individual wishes of the service contents. In addition, the expectations are often based on alternative offerings, therefore the company should be aware of the other available solutions. Moreover, one needs to acknowledge that the customer expectations are dynamic and continuously changing according to the competitive situation in the market (Shanker 2012b). For that reason communication between the supplier and customer to find out the current expectations is highly emphasized during the analysis.

As discussed by Ojasalo (2001) customer expectations can also be fuzzy, implicit and unrealistic, and in order to manage them they need to be transformed into precise, explicit and realistic expectations. Without having done the transformation, it may be challenging to identify potential value drivers from customer expectations. This means that the supplier needs to systematically analyze the customer (housing cooperative and

building manager) and understand their processes in order to realize the precise expectations. Based on the research the role of identifying value drivers from customer expectations is highlighted when meeting the customer and surveying the building. To ensure that the supplier's service level is adequate and satisfies the customer, the implicit expectations need to be revealed and turned into explicit expectations. By having mutually agreed service goals the supplier is able to calibrate unrealistic expectations into realistic. It is essential in order to establish long-term customer relationships.

The research revealed generic themes, which may help in the process of identifying potential value drivers (table 3). In this analysis the themes were used to construct the data analysis into specific product-, service-, price- and relationship related value drivers. However, the themes can be used to manage customer expectations in terms of more comprehensive view of the offering. Particularly they help in understanding the solution more thoroughly as the supplier has to consider the offering from multiple perspectives.

Table 3 Value driver themes

	Value driver themes
Product	<ul style="list-style-type: none"> - Situations in which customers would gain notable value of the product - Factors that do/do not support the necessity of the product - Expected and augmented elements of the product
Service	<ul style="list-style-type: none"> - Determinants affecting the customers' expectations and perceptions of the service quality - Attributes and features of the service that increase the service quality perceived by customers
Price	<ul style="list-style-type: none"> - Overall price of the solution and related service - Value-adding pricing elements
Relationship	<ul style="list-style-type: none"> - Expected supplier qualities - Valued customer-supplier relationship elements - Development of the relationship

In the present study the appropriate value drivers that can be implemented in the offering to maximize the customer perceived value are presented in the table 4. Generally, identifying value drivers helps the organization to build an attractive product/service portfolio and helps to adjust their marketing strategies. Therefore, based on the data analysis the dominant value drivers are elaborated in terms of identified customer benefits and customer sacrifices (costs). It should be noted that the value drivers could be related to each other regardless of the division into four different groups (product, service, price, relationship).

Table 4 Dominant value drivers based on the research

	Product	Service	Price	Relationship
Benefit	<ul style="list-style-type: none"> - Economic value - Maintaining building condition - Payback period-Working life ratio - Knowledge and resources for building manager - Superior energy savings - Customized and cost-effective solution - Comfortability of living 	<ul style="list-style-type: none"> - Understanding the customer - Communication - Initial surveying - Sales pitch in laymen terms - Reliability 	<ul style="list-style-type: none"> - Payback period - Quality-Price ratio - Clearly presented price and related costs 	<ul style="list-style-type: none"> - Expertise - Reliability - Encouraging two-way communication - Mutual trust - Responsiveness (Contact person) - Damage control
Sacrifice	<ul style="list-style-type: none"> - Having to deal with uncertainty of the actual results - Price 	<ul style="list-style-type: none"> - Negative implications of miscommunication - Price 	<ul style="list-style-type: none"> - Uncertainty of total customer costs 	<ul style="list-style-type: none"> - Having to deal with conflict of interest - Used time

The research revealed that in order to promote the new energy efficiency service for housing cooperatives, the supplier should especially focus on establishing and building the customer relationship. The statement is supported by Lindgreen and Wynstra (2005) as they highlight that sometimes the value of a customer-supplier relationship is regarded more important than the actual product or service due to supplier's certain characteristics. In this case it means that the supplier could differentiate itself by taking

advantage of the relationship-related value drivers. In other words the supplier should give emphasis to the dominant value drivers presented in the table 4 and explained in the relationship-related value drivers –chapter.

However, the other dominant value drivers should not be overlooked as they are strongly related to maintaining long-term customer-supplier relationships. As Hollensen (2010, 137) argues that in order to sustain long-term industrial relationships recognizing customer perceived value leads to greater level of customer satisfaction and loyalty. Ultimately, it means the trade-off between the customer benefits and sacrifices. The sacrifices are not only monetary but involve also the uncertainty of the actual results concerning decreasing energy consumption; negative implications of miscommunication; conflict of interest between the customer and supplier; as well as the used time. If the supplier is able to increase the perceived benefits and deal with the sacrifices, housing cooperatives are more likely to perceive higher customer value. It would lead to higher commitment, new projects and ultimately higher market share and profit (Hollensen 2010, 137).

7.2 Managerial implications

Next, based on the research and data analysis, implications for value proposition development and value assessment practices are being considered. This is followed by the recommendations for operational and strategic decisions.

7.2.1 Value proposition

In order to design an effective value proposition the company needs to analyze and segment the market as stated by Payne (2006, 124). Based on the research and data analysis, several factors should be taken into consideration to realize the attributes the customer value. These factors include (1) the size and resources of the building managing agency; (2) the current state of the housing cooperatives as well as (3) the needs and emphasis regarding energy efficiency in different kinds of buildings. The small building managing agencies tend to have fewer resources, and therefore they often outsource services to make their operations more efficient. It is also important to pay attention to the state of the housing cooperatives, more specifically to their financial resources, upcoming renovations and the build of the Board of Directors. Especially

beneficial would be finding out the board members' expectations of energy efficiency solutions as they have a major role in the decision-making process.

As a small company, the supplier may have rather limited resources. Consequently, in order to operate efficiently only one or two segments should be targeted at once which is also noted by Lanning and Michaels (2000). Those segments should be specified carefully based on the valued attributes and the price customers are ready to pay. Therefore, to assess the opportunities within each segment, the factors based on each value driver theme help fragmenting the entirety into smaller units. This kind of an analysis enables to have a more multifaceted view of the concrete benefits and observable features that the specific customer segment would value. As emphasized by Shanker (2012a) the value needs to be communicated to customers through value propositions, which provide distinctive, measurable and sustainable value. Consequently, by taking the value drivers into consideration the supplier is able to make the offering distinctive compared to competitors' alternative offerings. In addition, the supplier would be able to understand not only monetary but also other expenditure of resources for the customer and based on that set the optimal price for the solution.

The potential energy and monetary savings the customer is able to receive by using the supplier's solution would indicate the measurability in the value proposition. As the research revealed, one of the most critical factors when designing a value proposition for each segment is to back up the promises. It supported by Anderson (2006) who argues that in the business markets most value propositions make claims of savings and benefits without proving them. It means having concrete proof, for example, of the potential energy savings, or having clear demonstrations of the solutions what they would involve for each type of building. In addition, the value delivery that is communicated through the value proposition needs to be flawless. In other words, if the supplier promises a 24/7 monitoring service, the system must not have any defaults.

Once the supplier has evaluated the value delivery opportunities for each segment it should choose the value proposition optimizing those opportunities. Shanker (2012b) explains that either the value proposition can focus on the benefits of the solution or it can be constructed on the barriers limiting the customer's operations. In this case the value proposition constructed on the barriers limiting the customer's (housing cooperative's or building manager's) energy or operational efficiency would be more

effective as it can offer a straightforward answer to the customer's problem. Moreover, it is essential that the value proposition is efficiently communicated and resonated in each customer surface point as described by Lanning and Michaels (1988). In other words, not only the supplier needs to understand the importance of the value proposition but also the supplier's subcontractors who are delivering the service to the housing cooperative. Finally, the value proposition delivering sustainable value indicates that customers are able to rely on continuous value delivery. It also means that the supplier realizes the need to reflect a customer's evolving requirements. Therefore, it is essentially important that the supplier has an up-to-date understanding of the customers' expectations and perceptions of the solution.

7.2.2 Value assessment

The present chapter focuses on the pre-delivery steps of the value assessment process defined by Keränen and Jalkala (2013). These steps can help increasing the awareness of the customers' expectations as well as obtaining new customers. The first phase is the value potential identification. As Keränen and Jalkala (2013) explain, assessing the value potential prior of delivery, the supplier ought to identify customers' explicated needs as well as understand their processes. Accordingly, it should be noted that building managers are not always able to express the needs due to lack of knowledge of the latest solutions, unfamiliarity with the supplier's offering or general inexperience in the field etc. Consequently, the supplier needs to discuss with building managers to assess their working processes as well as specific characteristics of their customer housing cooperatives. Based on that the supplier would be able to achieve an initial understanding of the needs and processes building managers as well as housing cooperatives have. The supplier should understand the entirety of the potential customer's needs and processes already in the beginning of customer-supplier relationship in order to make claims of the monetary impacts of the solution on the housing cooperative.

The second phase of the baseline assessment is to determine customer's current performance and specifying mutual goals (Keränen and Jalkala 2013). In practice, it means surveying the building to find out its current solutions (or lack of solutions) and how the performance of the system could be improved. This step also involves assessing the building manager's performance and how it could be developed with the supplier's

offering. To prevent under- or overestimations of the performance the supplier should first agree with the customer on a mutual starting point and then establish technical and financial goals. The technical goals could comprise, for instance, increased energy efficiency whereas the financial increased energy cost savings.

The third phase, the performance evaluation, involves trial runs and specifying the value impact on a customer's performance prior or after the delivery of the solution (Keränen and Jalkala 2013). In this case, the supplier often needs to convince not only the building manager but also the Board. In addition, if the solution is financially major or is claimed to have critical impacts on the building in terms of e.g. better indoor air quality or stable room temperature in the whole building complex, it would be beneficial to conduct the performance evaluation prior to the delivery. It could require using similar buildings, which are already using the solution, as a reference for the customer.

Another essential process is the systematic data management throughout the customer-supplier relationship. This phase is important in customer value assessment in order to make an analysis of customer satisfaction and whether the mutually agreed goals have been achieved. Keränen ja Jalkala (2013) emphasize that in each customer contact point, such as meetings, negotiations and trial runs the supplier should collect customer data. It is important to acknowledge that the relevant data should not remain only as tacit knowledge but it should be available for the whole organization by documenting it. In this case, it is a significant factor as the company is a small organization and each employee has a critical role in the operations. The risk of losing vital knowledge along with an employee needs to be considered in the company strategy to prevent such incidents. Moreover, sometimes the customer might not be willing to share information (Keränen and Jalkala 2013); therefore developing a trust-based customer-supplier relationship is essential to efficiently serve the customer.

7.2.3 Operational managerial implications

By offering the initial survey for free, the company earns a respectable advantage in attracting a larger customer base to contact the supplier. The process of surveying the potential customer's building is time consuming and drains resources of the company conducting it. Not having a solid binding agreement between the customer and the supplier, the company risks of losing the customer after the initial screening process is

over. A contract should be signed, forbidding both parties of using the survey results to their own benefit, if the initial survey does not result in further actions between said parties. This would ascertain that the customer would not benefit from the free survey process by taking the offer to another supplier instead.

The company should have a designated contact person that works as a surface point between the customer base and the company. This contact person would be responsible for coordinating the flow of information between the company's management and the customer base. Any and all news regarding updates to the current applications and systems, changes in billing and other service related managerial issues would be run through the contact person and shared among the entire customer base. From a customer's perspective, the contact person would answer to queries sent through the mobile application and the web-based portal. Building a working communication with the customers is vital for the company's aim to reach a larger market share in the future and ensure a higher referral rate. The contact person's role links to the strategic level implications discussed further in this chapter.

The monitoring of the service should be made easily accessible for the building managers. The company should ensure that they have a working and reliable web-based portal. This portal should include numerous features as noted more specifically in the product-related value drivers chapter. Current portals are often either lacking vital content or are not accurate enough in portraying the figures. The system must be operational from the get-go and remain fully functional throughout its life cycle. Releasing a faulty interface would prove to be a major blow on company's image as a reliable business partner.

A mobile application software must be built. This application will work as an essential part in making the feel more involved with the company and its service package. The application would allow the tenants to self-monitor their energy consumption levels and compare them among respective neighbors to see if they could further influence their own energy consumption habits. The application would automatically give updates and news to the tenants, whenever the system detects an anomaly or the contact person sends out information. A possible feature for the application would be a meter that shows how much money they have saved using the service. This would work a motivation for the customers, as they would be able to see just how long it will take to

earn the invested money back. The mobile solution would also work in accordance with a new preemptive damage control protocol. This protocol ensures that any anomaly the system detects gets sent to the proper authorities. For instance, a sudden rise on the building's heat consumptions levels would automatically alarm the supplier and the building manager of the problem through the mobile application.

The company should have a working follow-up concept before offering the service package to a customer. This means that the company must have a template form and method in which they display the results to the customer. In order to accomplish this, two conditions must first be met. Firstly, the company must have a systematic way to log and compile information. The logs should be easily accessible, and compiling the data into a template form to be then displayed to the customer should be made possible. This requires extensive knowledge on software programming. Secondly, the company must have an existing database of information on similar buildings to be able to compare the data. Conducting the due diligence on the customer's building base to ensure comparing it with correct respective items in the database is the contact person's responsibility. The contact person also coordinates the actual follow-up process by sharing the compiled information with the customers to ensure maximum customer satisfaction.

7.2.4 Strategic managerial implications

The company's strategy defines its identity and provides the company with guidelines as to how to operate on the market in order to reach that image. Hence, it is of utmost importance that the company begins the process of reevaluating their methods of doing business from the top down. The company should renew their market strategy so that it emphasizes and reflects the positive effects of a successful and carefully planned customer relationship management more clearly. The end game for the company is to create a mutually beneficiary environment between the customer base and the company that dissolves some of the obstacles caused by gatekeeping as well as draws the customers to be more involved with the solution.

The company's strategy should portray the values related to the new operational level market plan. The chosen values are then to be turned into instructions and orders, as to how to implement those same core values throughout the organization. The company should first not only create the necessary operational level reforms but also focus on

building an understanding of the company's new strategy throughout the employee base. Implementing changes in an organization is fruitless, if the employees are not committed to them. To help this transition, the company should hold a training day to its employees in which they can ask questions and have the chance to see the bigger picture.

The new strategy involves a series of changes in how the communication between the customer base as well as the building managers is to be conducted. It is very important that the company makes sure the managerial level decisions relating to such things as segmenting the client base and hiring subcontractors support the operational level vision of the customer care. As the company is aiming into sharing a mutual vision of 'caring' for the building together with its tenants, it is essential that all the pieces of the equation work towards that solution. This means that the subcontractors working for the company must also understand and conduct their business under the same rules as the company itself when operating under the assumption that the work is done solely for the benefit of the main company.

7.3 Theoretical implications

As revealed in the literature review, especially the concept of customer value has been rather extensively studied during the previous decades. Therefore, this research was primarily conducted to facilitate the case company with an in-depth analysis of the potential value drivers, which could be utilized to enhance the value delivery of the new service. Consequently, the research does not provide major contributions to the customer expectation and customer value theory.

However, as Lapierre (2000) highlights a company needs to understand their offering in order to implement various value drivers. In other words, the offering needs to be assessed from different perspectives. It does not only include the product but also the related service, the price and the customer-supplier relationship. In order to successfully assess the product/service, this research provides specific themes helping in understanding the offering as well as identifying its value drivers. It supports Lapierre's (2000) other statement that by identifying the drivers creating value the company is able to learn how to provide better value to customers.

In customer value literature price of the offering is usually perceived as a sacrifice for the customer. (Doyle 2000; Kotler and Keller 2012; Lapierre 2000; Lindgreen and Wynstra 2005) In addition to that perspective, this research contrarily proposes value drivers that can be considered as the benefits of the price, which may improve the customer satisfaction. For example, for a complicated product/service offering it is essential that the price and the related costs are clearly demonstrated to the customer or the payback period of the investment is in line with the actual working life of the solution.

In value driver literature researchers have not considered value drivers from the four different perspectives (product, service, price, relationship) taken into account in this research. For instance, Lapierre (2000) discusses the aspects of product, service and relationship, whereas Ulaga (2003) evaluates the different relationship value drivers. The aim of this research was to provide a comprehensive view of the topic by implementing four different perspectives.

7.4 Reliability and validity of the study

In order to ensure the reliability of the study as many interviews as needed were conducted until the data became saturated. After the fifth interview new data did not appear anymore, therefore all together seven semi-structured interviews were conducted. The interviewees represent individuals who possess deep insight and knowledge in the matter. Between the interviewees, they have built an accumulative experience of tens of years in the subject of matter.

To ensure the validity of the results a qualitative research method was chosen with the purpose of collecting in-depth data from the interviewees. In addition, the qualitative research method best supported and encouraged the interviewees to share the tacit knowledge they have built on the subject throughout their career. Based on the data they shared, common factors among the representatives were identified and categorized accordingly. The data was then used to compare the results to existing research to further ascertain its validity.

7.5 Limitations and suggestions for further research

One major limitation for this research is the data collection method and time resources. Even though semi-structured interviews provided valuable in-depth knowledge, from

the customer expectation point-of-view conducting the interviews before and after the supplier sales pitch would have revealed how the expectations of energy efficiency and the offering change as a result of the supplier's presentation. However, it was impossible to organize as the interviewees as well as the researcher had rather limited time resources.

Regardless of the data reaching the point of saturation, the number of interviews is still rather small, which may have prevented receiving some additional knowledge and affected the reliability of the results. In addition, due to the small sample, the generalizability of the results is questionable. However, the interviewees were selected from different sized companies, which ensured variety to the customer expectations and perceived value.

Moreover, the company's offering is highly customizable and involves many different potential product and service combinations depending on the customer's needs. Therefore as a researcher, it would have been impossible to explain and assess the value drivers of each solution. However, the aim was to provide a comprehensive overall view of the topic from different point-of-views.

Another major limitation was the researcher's insufficient technical knowledge of the building systems and the energy efficiency solutions. The analysis results could have been different if the researcher had higher technical capability of the topic. In addition, the research process might have been affected by the researcher's own beliefs or impressions, which would make the researcher bias regarding the results.

The overall research consisted of four major topics namely product-, service-, price- and relationship related value drivers of the new service. The further research could focus on one of those topics in more depth. It would involve deeper analysis how to implement the dominant value drivers and how to assess the customer perceived value. Moreover, regarding this specific research area, energy efficiency in buildings, it would be interesting to study the customer expectations and value from the Board of Directors' perspective. The supplier could utilize the information to improve their satisfaction.

Finally, the customers often portray beliefs and attitudes within themselves, which they then use to determine how they see the product offering and its value. This

existence of subconscious decision-making level and its effect on product offering provides an interesting remark and an opportunity for further research. There may be a completely new type of a value driver, hidden within the complex realities of the augmented level. This could prove to be a surprisingly major factor and hence demand further research into the matter.

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APPENDIX 1.

Semi-Structured interview questions

INTRO

- Kuvaus tutkimuksen/haastattelun tavoitteista
- Kuvaus haastattelun rakenteesta/sisällöstä

TAUSTATIEDOT

- Lyhyt kuvaus haastateltavan yrityksestä (koko, työntekijöiden määrä, etc.)
- Haastateltavan rooli yrityksessä

ENERGIATEHOKKUUS + KIINTEISTÖJEN INVESTOINNIT

- Kuinka tuttuja teille ovat erilaiset kiinteistöjen energiatehokkuus- ja automaatoratkaisut?
- Kuinka tärkeänä pidätte energiatehokkuutta kiinteistöissä? Miksi?
 - Kustannusten pienentäminen tai muut taloudelliset syyt
 - Ympäristöön liittyvät syyt
 - Sosiaaliset syyt
 - Muut syyt, mitkä?
- Miten näette energian hinnankohityksen?
- Miten tärkeitä ovat energiansäästökysymykset sekä energian hinnankohitys kiinteistöjen investointipäätöksiä tehdessä?
- Mitä ominaisuutta/elementtejä päätöksentekijät korostavat kiinteistöjen energiatehokkuuteen liittyen?
- Mitkä tekijät vaikuttavat kiinteistöjen investointihankintojen päätöstentekoon?
 - Mitkä tekijät ovat merkittävimpiä?
- Miten näette rahoitusmallin tärkeyden investointipäätöstä tehdessä?
- Mikä on teidän roolinne investointipäätöksiä tehdessä?

NYKYISET RATKAISUT KIINTEISTÖISSÄ

- Osaatko arvioida miten suureen osaan asiakaskiinteistöistänne on tehty peruskorjauksia viimeisen 10 vuoden aikana?
- Kuinka moneen näistä kiinteistöistä on tehty energiatehokkuutta edistäviä toimenpiteitä?

- Millaisia energiatehokkuutta edistäviä järjestelmiä on kiinteistöissänne käytössä?

POTENTIAALISET RATKAISUT KIINTEISTÖISSÄ

- Miten parantaisitte kiinteistöjen energiatehokkuutta tai sitä edistäviä järjestelmiä?
- Mitkä ovat tärkeitä elementtejä kiinteistöjen kokonaisvaltaisessa energiatehokkuuden hallinnassa?
- Mitä tavoitteita asettaisitte kiinteistöjen energiatehokkuutta edistävälle järjestelmille ja palveluille?
- Minkälaisia haasteita näette energiatehokkuuden parantamisessa?
 - Tarvittavat muutokset
 - Taloudelliset haasteet
 - Sosiaaliset haasteet
 - Etc.
- Oman työnne kannalta, miten koette seuraavat asiat
 - Kiinteistön energiatehokkuutta edistävä elinkaari palvelu (sis. alkukartoitus, suunnittelu, toteutus & urakointi, valvonta & ylläpito)
 - Reaaliaikainen valvonta ja säätö ulkopuolisen tahon toteuttamana
 - Energiansäästötoimenpiteet (rakennusautomaattoratkaisut, lämmöntalteenotto, uusiutuvat energiaratkaisut, pumpputekniikka, valaistuksen optimointi)
 - Asiakaskohtainen sivusto, jonka kautta käyttäjä pääsee käsiksi mm. taloteknillisiin kaavioihin, kiinteistökuviin ja -suunnitelmiin ja taloyhtiön tiedotteisiin

TALOTEKNIIKAN YLLÄPITO JA VALVONTA

- Miten talotekniikan ylläpito ja huoltotoimenpiteet ovat järjestetty kiinteistöissä?
- Miten taloteknisiä järjestelmiä valvotaan?
 - Miten usein rakennusten energiankäyttöä seurataan?
 - Saatteko kattavat raportit esimerkiksi energiankulutuksesta?
 - Millainen tieto olisi hyödyllistä raportissa
- Pystyvätkö nykyiset järjestelmät ja niiden valvonta ennaltaehkäisemään laiterikkoja? Miten?
- Mitkä olisivat talotekniikan valvonnan ja ylläpidon ulkoistamisen
 - Hyödyt

- Haitat/Haasteet

ASIAKKAAN ODOTUKSET PALVELUN TARJOAJASTA

- Millaisen palveluntarjoajan kanssa haluaisitte tehdä yhteistyötä?
- Mitkä elementit ovat tärkeitä liittyen asiakassuhteiden hoitoon?
- Mitä palveluntarjoajan tulisi ottaa huomioon tuote- sekä palvelukehityksessä?

VAPAATA KESKUSTELUA