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The value of value: exploring customer preferences in knowledge intensive business services using a conjoint analysis approach

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Abstract

Objective: This study investigates the relative importance of important value dimensions in KIBS offerings. This is done by using a customer-centered perspective with theory from service marketing and microeconomic principles. KIBS (Knowledge intensive business services) firms have, generally, spent less time on internal innovation and this might harm the profitability. Customer value is evident to understand in today's economic climate to succeed, especially when examining new product or service concepts.

Methodology approach: The research study used a mixed method combining grounded theory and conjoint analysis. The first part of the study consisted of four semi-structured interviews. The interviews were used as a foundation for the conceptual framework that conjoint analysis was built upon. The second part consisted of a conjoint analysis survey. The survey was distributed towards 42 KIBS customers and elicited the customers' relative importance among the five chosen value dimensions. The survey was also distributed towards 30 KIBS providers to further enhance the robustness of the study.

Research limitation: This research study only address the relative importance among these five value dimensions, other important dimensions besides the five chosen is neglected. The study used a sample concentrated in south-eastern part of Sweden.

Results/conclusion: The conceptual framework consisted of five value dimensions: price, introduction, competence, relationship and start of delivery. Competence was deemed as the most important value dimensions followed by start of delivery, price, relationship and last introduction. The results differed between the self-explicated model and conjoint analysis method, where the conjoint analysis results had substantially less standard deviations. The findings likewise differed when asking the customers and the KIBS providers. This indicate the importance of a customer-centered perspective when investigating customer value. The results also indicate that KIBS customers strive for a high benefit rather than low sacrifice. A flexible KIBS provider with unique competence may therefore have a service that is less price sensitive according to the results in this study.

Future recommendations: The results in this study indicates a mismatch between KIBS customer and KIBS provider in terms of customer value. Therefore studies to further investigate this may be of research interest.

Keywords: KIBS, conjoint analysis, customer preferences, customer value, service quality, service management, service marketing, co-create value, potential value-in-use.

Sammanfattning

Mål: Den här studien utreder den relativa viktningen mellan betydelsefulla värdedimensioner i KIBS erbjudanden. Studien använder ett kundcentrerat perspektiv med teori från tjänstemarkandsföring och mikroekonomiska principer. KIBS (Knowledge intensive business services) har generellt investerat lite på intern innovation. Kundvärde är idag viktigt att förstå för att lyckas i ett modern affärsklimat, speciellt när man ska utvärdera nya produkt- och tjänstekoncept.

Metodisk tillvägagångssätt: Den här forskningsstudien använder sig av en blandad metod som kombinerar grundad teori med conjoint analysis. Den första delen av studien innehöll fyra semi-strukturerade intervjuer. Intervjuerna användes sedan för att skapa grunden för det konceptuella ramverket som conjoint analysis bygger på. Den andra delen av studien innehöll conjoint analysis enkäten. Enkäten distribuerades till 42 KIBS kunder och tog fram kundernas relativa viktning i de fem valda värdedimensionerna. Enkäten distribuerades också till 30 KIBS leverantörer för att ytterligare förbättra robustheten i studien.

Begränsningar: Forskningsstudien adresserar endast den relativa viktningen i de fem valda dimensionerna. Studien använde ett urval för enkäten som var koncentrerat i sydöstra Sverige.

Resultat/slutsats: Det konceptuella ramverket bestod av fem värdedimensioner: pris, introduktion, kompetens, relation och leveransstart. Kompetens ansågs vara den viktigaste värdedimensionen följt av leveransstart, pris, relation och sist introduktion. Resultaten skiljde sig mellan den självförklarade modellen och conjoint analysis modellen, där conjoint analysis hade väsentligt lägre standardavvikelser. Resultatet skiljde sig även ifrån KIBS kunderna och leverantörerna. Det resultatet indikerar betydelsen av att ha ett kundcentrerat perspektiv när man undersöker kundvärde. Resultaten indikerar också att KIBS kunder strävar efter en hög nytta, snarare än en låg uppostring. En flexibel KIBS leverantör med unik kompetens kan därför ha en tjänst som är mindre priskänslig enligt resultaten i den här studien.

Framtida rekommendationer: Resultaten i den här studien indikerar en dissonans mellan KIBS kunder och leverantörer i området kundvärde. Därför borde studier som ytterligare undersöker detta fenomen vara av intresse för forskningen.

Nyckelord: kundpreferenser, kundvärde, tjänstekvalité, tjänstemarkandsföring, kunskapsintensiva tjänster

Preface

In September 2016 a preparation meeting with Nils Börjesson and Martin Kroon at the technical consultants company Rejlers was conducted and an embryo for the thesis was born.

This is a thesis in Master of Science in engineering and industrial management at Blekinge institute of technology in Karlskrona, Sweden. The project was conducted during the spring semester 2017 at Rejlers Sverige AB, region southeast, Sweden. The master thesis is equivalent to 20 weeks of fulltime studies (30 ECTS).

Of course, we want to thank a number of persons that have supported us during the project.

Nils Börjesson, supervisor at Rejlers, that gave us valuable insights about the industry and also material and contact information that was needed during the project.

Professor Martin Andersson at Blekinge institute of technology that has given methodical advice and help with the theoretical framework, especially in the area of microeconomics.

We want to thank our colleagues at Rejlers that have welcomed us and created a good working atmosphere during our time at Rejlers. There was a lot of fun and hard work, particularly in the running track.

Finally, we will also thank our family and friends, especially our girlfriends, Nina Ivarsson and Lotta Frick, for the encouragement and support during this semester.

Nomenclature

List of Abbreviations

GDL	Goods dominant-logic
IP	Interview person
KIBS	Knowledge intensive business services
MRS	Marginal rate of substitution
OLS	Ordinary least square
P-KIBS	Professional knowledge intensive business services
SDL	Service dominant-logic
SEK	Swedish crowns
T-KIBS	Technical knowledge intensive business services

List of Symbols

D	Demand
E	Elasticity
P	Price
Q	Quantity
PE	Preference
SD	Standard deviation

Notations

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1 INTRODUCTION

In this chapter the background and problematization of the study is presented. It gives background about the service industry in general and knowledge intensive business in particular, focusing on both growth and profitability. It gives also a brief introduction to service marketing and some microeconomic terminology.

1.1 Introduction

This study investigates the relative importance of critical value dimensions in knowledge intensive business service (KIBS) offerings. This is done from service marketing and microeconomic principles and with a customer centered perspective.

From the 1970s exchange of customer value has been considered the very heart of marketing (Grönroos, Holmqvist, & Gyllendorff, 2008). The economic climate has since then changed and marketing is now focused on the relationship, and not just on the transaction between customer and supplier (e.g., Grönroos, 1994; Vargo & Lusch, 2004; Gummesson, 1987). Although, one thing has not changed – the importance of understanding your customer and emphasize on customer value is still one of the most important things for companies (Ravald & Grönroos, 1996; Vargo & Lusch, 2004).

In the new, modern economic climate a new branch in marketing likewise emerged – service marketing (e.g., Gummesson, 1987). The service sector has grown more important in industrialized countries (Grönroos et al., 2008). But the distinction between service and product has been harder to recognize. Researchers even suggest that we shouldn't consider this traditional fragmentation, but rather just focus on the value proposition to the customer (Grönroos, 1994; Vargo & Lusch, 2004, 2008), regardless of it is a service or a product. This will, of course, make it even more important to understand customer value.

In relationship and service marketing the focus on the value-in-use concept (e.g., Ravald & Grönroos, 1996; Vargo & Lusch, 2004) is evident (e.g., Aarikka-Stenroos & Jaakkola, 2012; Gummesson, 1987). Value in use emphasize on the creation of value, and how it's created. Traditional marketing emphasize on value being provided (Gummesson, 1987) by the supplier. Service marketing, in the contrary, claims that value is always created by the customer and cannot be provided by the supplier. Rather the supplier can create the opportunity for value creation, but the value is always created in the customer sphere (Ravald & Grönroos, 1996; Vargo & Lusch, 2004).

In sectors where billing per hour is the industry standard, as in the case of KIBS and consultancy sector, value pricing can be a method to consider (Sturts & Griffis, 2005). Per hour billing puts a lot of emphasize on the cost and this will lead to the firms need to engage in mainly price cutting operations. This approach often makes the firm more focused on their internal processes rather than focusing on the customers preferences. With new business and pricing models more value can be captured and the firm can fully capitalize on their knowledge which is their greatest asset .

A value pricing model, on the contrary, puts the market demand and customer first and the internal cost second. The idea is to charge the value generated by the service rather than the actual hours put in. It is likewise strengthened by microeconomics theory about price elasticity of demand and customer preference. These principles states that the quantity sold is a function of the price, but how they change is dependent on the elasticity of demand. Switching the focus to the customer can thereby differentiate one actor from another, in the sector, and make the product or service less price elastic. The

problem with cost-based approaches is that they does not take supply and demand into account, and therefore not the price elasticity. Price strategies that do take supply and demand into account often emphasize on understanding customer value (Tung, Capella, & Tat, 1997). The value pricing model have been argued to be superior in contexts like accounting, where per-hour billing is industry standard (Rosén, 2010).

1.2 Background

In the emerging service sector one type of business services have grown essentially in both volume and importance in the business community. These are, generally, explained as KIBS. The Swedish industry association for the business service sector state that over 80% of the jobs the last two decades was created in the service sector (Almega, 2016). This truly show how service focused the economy in Sweden has become and today's service sector employ 75 % of the Swedish workforce (Almega, 2016).

One sector typically considered as KIBS are technical and design consultancy firms where the employees is 51 000 people with a total turnover of 61 billion SEK in Sweden (STDC, 2015). These services tend to be very knowledge intensive and focus solely on business-to-business. Sweden is one of the countries with highest employment in the KIBS sector, as percentage of the total workforce, worldwide, but Sweden's export of these services are not higher than the average European country (Regeringskansliet, 2011). This might indicate that Swedish firms, in this sector, pay low attention to new business opportunities and expanding their current market. The rough competition in the home market put pressure on the profitability and their capability to conduct internal business innovation. Because of the growth of services in general and KIBS in particular the research attention has grown the last twenty years towards KIBS and their role in the modern economy.

Although, the sector is continuously growing in industrialized countries some kind of stagnation of the profitability of the firms can be seen, and in some cases even decreased. The annual e-Work barometer indicated that the competition is likely to increase and the price isn't going to be substantially higher (Ework, 2016). According to the Swedish technical and design companies association the average operating margin was 5.6 %. The association likewise indicated that the wages of the consultants is growing at a faster rate than the growth of price (STDC, 2015). The lower profitability is a product of the enhancing competition in this business sector. The services offered by the firms have become more mature and the sector is in need of new business models to emerge. Instead of new business models the firms solve this by increasing the occupancy rate (Ework, 2016) and this will, naturally, lead to even less innovation and business concepts to be developed. When occupancy rates becomes high the flexibility of these consultancy firms become restrained and this is something that may hurt customers that is in need of a quick solution.

This study is made in collaboration with the Swedish technical consultancy company Rejlers Sverige AB. It is a listed company on OMX small cap with around 2100 employees (see table 1.1), which after years of increased employment now is facing challenges with price stagnation and fall of profitability in the consulting sector, (see figure 1.2) .

The rising competition in the industry together with Rejlers substantially growth the last five years and the lack of price development in the industry make this an interesting case. This research is therefore of highest interest for companies like Rejlers and the entire technology knowledge intensive business services (T-KIBS) industry. T-KIBS is technology based KIBS firms, typical in the engineering or information technology businesses. Rejlers is

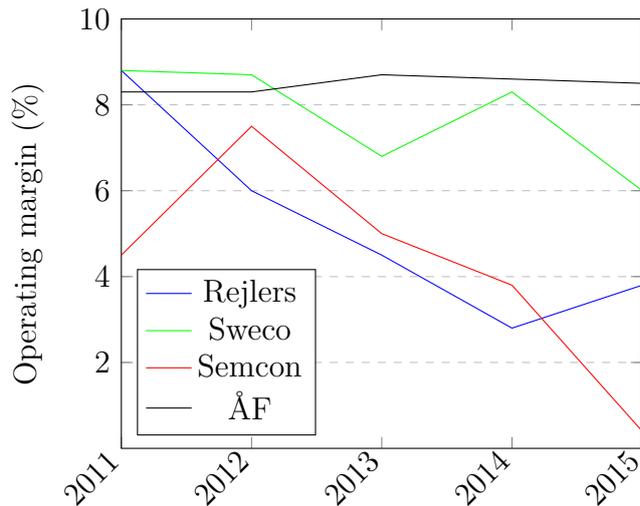


Figure 1.1: Operating margins T-KIBS firms in Sweden source: (Rejlers, 2015; Semcon, 2015; Sweco, 2015; ÅF, 2015)

not the only firm in this sector who have seen a decrease, or stagnation, in the profitability the last years (see figure 1.2. Understanding the customer value is important when exploring new business models and is the reason behind Rejlers involvement in the study.

Table 1.1: Development of number of employees at Rejlers source: (Rejlers, 2015)

Year	2011	2012	2013	2014	2015
Number of employees	1320	1532	1664	1742	2082

This is of course concerning reports for the T-KIBS sector. They have seen a tremendous growth in their sector, but the market is becoming more and more saturated and this puts a lot of pressure on the companies' margins. The consultancy until today has focus on the technical innovation towards their customer while distributing their services.

The innovation of KIBS have been of research interest, however the research is frequently focused towards their role in innovation systems (Strambach, 2001). The internal innovation in KIBS firms, however, has not been researched especially well. Vargo and Lusch (2004, 2008) claims that, in the modern economy, innovation should be considered how firms better can serve, rather than their capability to produce outputs. This would indicate that KIBS firm should focus their capability to better serve their customers and innovative ways of achieving that. Although this part of KIBS is somewhat neglected in research.

Because the understanding of customer's value can in this case be evident for the success of the firm. Grönroos et al. (2008) explains that understanding customer value and building long term relationship with your customer can help companies explore new types of strategies and business models.

The focus on this study is therefore to try to, to some extent, close this research gap. Customer value is a determinant for business success in any industry today (Grönroos et al., 2008; Vargo & Lusch, 2004). This study investigates what customer value in KIBS offering combining theory from microeconomics and service marketing, together with new empirical findings.

1.3 Objectives

The objective of this study is to investigate customer willingness to pay for different value dimension that KIBS firm offer. The dimensions are considered to be the the customer's preferences for the KIBS offering and together they form the actual service provided . The main focus of the study is to further investigate these value dimensions and their relative importance to each other. This will add to service marketing research about customer value and can be used as a framework when adopting more modern approaches to pricing in this industry.

1.4 Delimitation

The study is delimited to study T-KIBS customers and firms. This is done to narrow down the scope of customers to examine and because of the authors' interest and knowledge in engineering and information technology.

The study is delimited to T-KIBS customers and firms, rather than the whole KIBS sector, to narrow down the scope of customers to examine. Almega (2016) state that the sector of T-KIBS are involved in investments corresponding to 10 % of the total GDP in Sweden. T-KIBS increased impacts on Swedish business community and their capability of innovation make them important to investigate further. It also corresponds to the authors' interest and knowledge in engineering and information technology.

The companies involved in the study are all based in the south-eastern part of Sweden. The delimitation are motivated by the time-scope of the study. Concentrating the sample towards a specific region can likewise increase the change of a generalizable result for that particular region.

Although articles and theories about value pricing has been one of the main inspirations when developing this study it is not the aim of the thesis. The study is solely based on customer value to determine which value dimensions of T-KIBS offering that customers value the most. This result may be used as a guideline when constructing a value based strategy, but the implementation of such a strategy is not in the scope of the study.

1.5 Thesis question

To be able to reach our objectives our work was divided into two sections. The first section consists of identifying the value dimensions of the service offerings. This is necessarily to be able to tell which dimensions that are important. This part of the study is focused on qualitative assessment of literature and research together with input from interviews with T-KIBS customers. This is done to get a customer-centered approach and get their view of purchase process and important value dimensions.

The second section of this study consists of identifying the importance of the different value dimensions. Even though all of them are important aspects of the service offering it is likewise important to know how essential they are for the customer. This part of a quantitative sort will put high emphasize on statistical analysis. This is the main part of the investigation with the research question:

- What is the relative importance among significant value dimensions in KIBS offerings?

In order to conduct this study we identified the customer preferences for the KIBS offering (in the this thesis considered as value dimensions, read more below in section 2.1 Customer value). The customer preferences defined significant value dimensions and these are the ones that were investigated further.

2 UTILITY THEORY IN A SERVICE CONTEXT

In this chapter the theoretical framework for this study is presented. The chapter is divided into three sections: customer value, service and knowledge intensive business services. The framework is focused on service and relationship marketing literature, but likewise consist of microeconomic principles e.g. price elasticity of demand.

2.1 Customer value

Utility is a cornerstone when considering customer value (Bernoulli, 1954). The ground of the utility theory described as the difference between marginal cost and marginal utility. The customer seeks to maximize the marginal utility in each transaction.

Utility and value were mentioned already by Adam Smith. A well-known example of diamond and water smith2017, where both have high utility even though only water is essential for human survival. The utility theory has afterwards being further developed with concepts like customer value.

Customer value is a term often used in research, but the definition is sometimes vague and used in different contexts (Woodruff, 1997). There have been several definition proposed during the years. In some areas researchers seem to agree and a consensus about certain aspects of value contexts (Woodruff, 1997):

- Value is not something pre-defined, but rather something that the customer perceives.
- Value is a trade-off between what the customer sacrifices (price, time) and what customer receives

The ambiguity of the expression stem from different words used by researchers to define the term customer value, words such as utility, worth benefits and quality are often used but without any clear definition of their meaning (Woodruff, 1997). Value, ultimately, is about making trade-off between the sacrifices and benefits (e.g., Liljander & Strandvik, 1995; Sole & Carlucci, 2010), as explained, between attributes and the consequences of the buying decision. Woodruff (1997) claims that there are of utterly importance to have a customer driven definition of customer value, to capture the full complexity and potential of the term, he states: “Customer value is a customer’s perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer’s goals and purposes in use situations.” (Woodruff, 1997, p. 142) This definition is derived from empirical research about customer thinking and acting towards the conceptual term of value.

Another common expression when dealing with customer value is the term perceived value (Zeithaml, 1988). From empirical reserach she states: “perceived value is the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given.” (Zeithaml, 1988, p. 14)

Consumer perceived value has more dimensions than just the trade-off between value and quality. Sweeney and Soutar (2001) proposes a conceptual model that also emphasizes on both hedonic and utilitarian aspects. In the conceptual model four different value dimensions are defined and described: quality, emotional, price and social. In the empirical test of these dimensions showed that the emotional dimension often was more important than quality, especially at the purchase decision.

In later research a paradigm shift have occurred in marketing research (Kuzgun & Asugman, 2015) from a GDL (good-dominant logic) into a SDL (service-dominant logic) (Vargo & Lusch, 2004). Instead of seeing companies as seller of goods and services the

companies are seen to provide the customer with a service that provides value. In the SDL the customer is seen as a co-creator of value, rather than a value recipient.

The SDL emphasizes on the long-term relationship with the customer. In this type of relationship value is sought. These relationships can be categorized into three different types (Kuzgun & Asugman, 2015): dyadic relationship with value generated by the provider, but also value created by the customer, for example trust and commitment. The second relationship is one occurring between different customers and spreading positive word-of-mouth. The third relationship is between different kinds of social networks, both physical and social-media based. All of these three relationships create value for both company and customer.

A common misconception of the SDL is that it relies on the theory about the shift towards a service economy (Vargo & Lusch, 2008), rather it focus lies in the value creation together with the customer (Vargo & Lusch, 2004, 2008). The term service is not to be confused with the plural equivalent services, which refers to the actual service process. The term service, in SDL, refers to the value proposition offered to the customer — a service offering value. This has implication on how firms should consider innovation Vargo and Lusch (2008, p. 4-5) writes: “That is, innovation is not defined by what firms produce as output but how firms can better serve.”

The SDL was created as a counterpart of traditional marketing commonly referred to as the marketing mix and the four P’s (McCarthy, 1960). The managerial approach to the four P’s and the marketing mix was commonly popularized by Phillip Kotler in 1960’s. Different researchers have since then challenged the marketing paradigm (Grönroos, 1994; Gummesson, 1987; Vargo & Lusch, 2004, e.g.). Although some claimed that the SDL was not ground-breaking rather a natural development towards how the business environment had changed.

Grönroos and Gummerus (2014) criticized the SDL for being too focused on the provider firm, rather than the customer. The SDL merely focus on the value proposition and (Grönroos & Gummerus, 2014) argued that a service logic need to have broader perspective and include the total process of customer management. This would mean that marketing are not just about making promises towards customers, i.e. value propositions, but building a sustainable relationship.

Another traditional microeconomic approach are consumer preferences and consumer opportunities. Given the economic possibilities of the consumer the opportunity to buy a certain products arise, although it is the consumer’s preferences that decide whether the consumer will buy the product or service (Baye, 2013). The preferences decide their willingness to pay for a certain product. Indifference curve show us the preference between two products or services compare to each other (see figure 2.1). The same value, or utility, is obtained for the customer throughout the curve the value function is then given by $f(a, b) = c$, where c is the value constant, and a and b are the two different goods. An indifference curve that is more to north-west direction in the graph indicates an indifference curve with a higher value constant.

Together with the budget line, that reflects the consumer’s economic boundaries and will decide the consumer opportunities. The goal for the consumer, according to fundamental microeconomics, is to maximize their value given their preferences and budget constraint. This occurs where the budget constraint and the indifferent curve have the same slope and is called the consumer equilibrium. The slope of the indifference curve is usually referred to marginal rate of substitution or MRS see equation 2.1 (Baye, 2013).

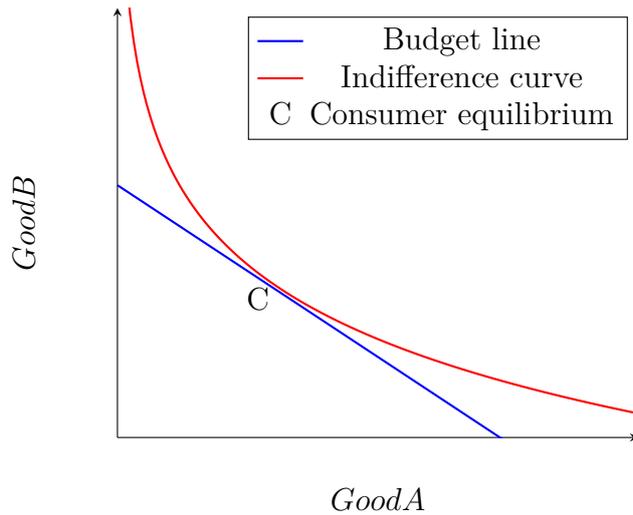


Figure 2.1: Indifference curve, budget line and consumer equilibrium

$$MRS = \frac{PE_a}{PE_b} \quad (2.1)$$

where:

PE_a = preference for good a

PE_b = preference for good b

The preference doesn't have to concern the trade-off between two goods; rather it could also be attributes within goods. For example the preference between memory and screen size when buying a laptop. Lancaster (1966) proposed the attribute approach to understand the underlying features of products and to not focus solely on consumer analysis concerning goods, but also the attributes of goods. He proposed that it isn't the good per se that gives the customer value rather it is the characteristics, or attributes that the good consist of. This would mean that it is more important to find the customer's preferences in terms of these characteristics rather than the preferences in terms of different goods. The customer preference for these attributes, or characteristics, is something that, in this study, is considered as value dimensions. This word is continuously used in economic literature and corresponds to Lancaster (1966) way of showing these dimensions are valued by the customer rather than the whole product.

Indifference curve analysis is not restricted to the relationship between just two goods; rather the number of goods or attributes could be arbitrary. Although for educational reasons it often just showed as a graph of two graphs. In multi-variable analysis where more than two goods or attributes are concerned the consumer equilibrium is found when the value function $f(a, b, c, d) = e$ is maximized given the budget constraint.

In more modern marketing literature concept as value-in-exchange and potential value-in-use (Grönroos & Gummerus, 2014) emerged. Potential value-in-use is the attributes of the resources, provided to the customer. This is later, by the customer, realized as value. Potential value-in-use likewise corresponds to the value dimension concept used in this study.

2.1.1 Preferences, demand and price sensitivity

Depending on the consumer's preferences the demand of the market changes and the firm therefore has different possibilities for price changes. In perfect competition, for instance, the price is set by the market. The supply and demand theory were popularized by Marshall (2009) in the late 1800-century and have since then been one of the key microeconomic principles.

One measure on how price sensitive the customers are, and therefore how much room the company has for price change in price elasticity of demand (Marshall, 2009). It specifies how the quantity sold, of a good, varies when the price is changed. Price elasticity of demand is sometimes, referred to as own price elasticity of demand, and should not be confused with price cross-elasticities which refer to how price change effect two different goods. For instance in perfect competition the price elasticity of demand is considered perfectly elastic; this will be discussed more in depth later.

The price elasticity of demand for a good is expressed in equation 2.2 . The price elasticity of demand is usually negative because a higher price will lead to a lower number of goods being sold, although a few exceptions exist but these are not considered in this study, as their relevance to the subject is low. If a good have a value between 0 and -1 the good is considered elastic, meaning that a decrease in price will generate an increase in total revenue. If the good have a price elasticity below -1 the good is considered inelastic, meaning that a decrease in the price will generate a decrease in total revenue. The total revenue is therefore maximized when the price elasticity of demand is -1.

$$E_{Q_x, P_x} = \frac{\% \Delta Q_x^d}{\% \Delta P_x} \quad (2.2)$$

where:

E_{Q_x, P_x} = Price elasticity of demand for Price P and Quantity Q for good x

ΔQ_x^d = The change in quantity when changing the price

ΔP_x = The change in price

In microeconomics the price of a good is set after the supply/demand premises (Marshall, 2009). The economic equilibrium occurs where the demand function and supply function intercept each other. The price elasticity of demand has strong ties to the demand function of a good. Depending on where the economic equilibrium occurs, i.e. where the price is set, the price elasticity of demand will change. The nature of the demand curve reflects the nature of the price elasticity of demand. A good is considered perfectly elastic when the price elasticity of demand is ∞ this means that even a small change in price will decrease the number of sold items to zero. A demand curve that is perfectly elastic, and perfectly inelastic, can be seen in Figure 2.2.

As previously explained the basic microeconomic principles states that the price is always determined by the supply and demand in the market, although Grönroos et al. (2008) stated that competing by price is not preferable strategy for successful companies in the modern service economy. Rather the focus should be on relationship and service management to obtain long term benefits towards the competitors. Focusing on relationship and providing means for value creation can be hard unless the offerings are customer-centered and the benefits of the offer are clear, but are often a better than a price-cutting strategy because of the long-term benefits (Grönroos et al., 2008).

Stock (2005) proved that customer satisfaction and loyalty can decrease their price sensitivity. For example, a long relationship is one of the parameters that can make a

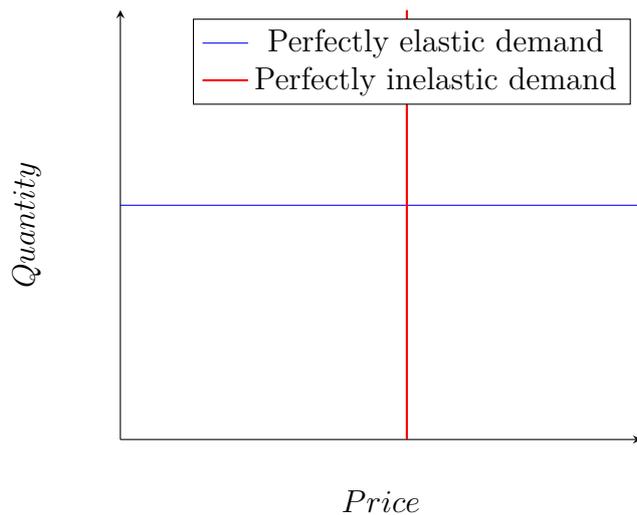


Figure 2.2: *Perfectly elastic and perfectly inelastic demand*

customer less price sensitive in a business-to-business context. If there is more value dimensions considered by the customers than price improving these dimensions, typically considered as benefits, would decrease the price sensitivity of the customer. In perfectly elastic industries the price is the only value dimension; if the price is increased then the product or service has no value. These industries are generally considered as homogenous and the product or services, typically, have many substitutes.

2.2 Services

2.2.1 Definition

The marketing research has for a long time been of GDL, but as explained this paradigm is being challenged with the SDL. The first researchers to focus their attention towards services found some ambiguity in the expression (Rathmell, 1966). Although some clarity in the expression exists in term of pricing the difference is explained by: “Unlike a good, where monetary values are stated in terms of a price, services are more likely to be expressed as rates, fees, admissions, charges, tuition, contributions, interest, and the like.”(Rathmell, 1966, p. 34)

The question if all services should be considered together within marketing or in their respective field was asked in the beginning of service marketing research (Rathmell, 1966). Researchers claimed that it’s insufficient to just consider services as intangible products (Grönroos et al., 2008; Shostack, 1977). As described the marketing field had been focused towards products, rather than services and this has led to some difficulties and perplexity concerning some expressions (Shostack, 1977; Vargo & Lusch, 2008). One more dimension of complexity is the fact that there are few products and services that do not mix, meaning offerings are often a mix of product and services (Rathmell, 1966; Shostack, 1977). Shostack (1977) stresses the importance of examining the different elements of products and services, grouped by their tangibility or intangibility.

The tangibility is often considered one of the key aspects and in terms of pricing Docters, Reopel, Sun, and Tanny (2004) gives two main differences compared from a product: Their intangible nature; their high likelihood of being irreplaceable The latter statement puts, of course, much higher emphasize on risk on services than on product

and this is something that generally been considered a main difference. Grönroos et al. (2008) explains one of the key aspects of services is that the customers involvement in the processes of both production and delivery. This is one of the reasons for the evolvement of service management. Grönroos et al. (2008) explain three features for services:

1. Services are processes that consists of activities or a series of actives
2. Services are produced and consumed simultaneously
3. The customer participate as co-producer in the production process of the service

To summarize the findings some key aspects of services are:

1. The intangible nature of the elements offered
2. Pricing is given in other terms than just a monetary price: rates, fees etc.
3. The difference in risk where services often are irreplaceable
4. Services are co-produced with the customer and are formed by activities
5. Services are produced and consumed simultaneously

These are the main dimension of the definition of the service which we will consider in this study. It put emphasize on the nature of services, the pricing of services, their differences in risk comparing to physical products and the customer participation. All these aspects are important when trying to understand the focus of service marketing literature.

2.2.2 Customer service value

The customer value have been implicated to be of high importance in a service context, perhaps even more than in a traditional product context (Sánchez-Fernández, Angeles Iniesta-Bonillo, & Holbrook, 2009), although the confusion of value the term is decreasing the potential, but researchers highly emphasize on the need of understanding it. Because of this during the last 20 years the service literature have been focused on understanding service value and quality (Cronin, Brady, & Hult, 2000).

The terms service value, service quality and service satisfaction is often described to be the ones to determine the outcome of the service (Bolton & Drew, 1991). Where the customer satisfaction is the perceived value for the customers, and the value is the perceived quality relative to price (Cronin et al., 2000). Some empirical finding suggests that value is not just a trade-off between sacrifices and quality, rather it relies heavily on the perceived quality (Cronin et al., 2000). This would indicate that customer value exquisite quality over a low price.

The relation between service quality and service value has been focused in this research area (Bolton & Drew, 1991; Cronin et al., 2000). As described the value seems to be a trade-off between the service quality and the customer's sacrifice although researchers implicate that the value dimension is far more complex than that (Bolton & Drew, 1991; Cronin et al., 2000). In the definition of services the process is an important term, and is important to understand when discussing customer service value. The customer of a service does not consume the service rather they consume the process, which they are apart of (Grönroos et al., 2008). This shows the complexity of service and the need for understanding the whole process and the value dimension related to it. The outcome of a service, and therefore, the value created, is not just created when the service is consumed, rather the outcome can be before, during and after the consumption. Therefore a service provider would need to be interactive and relationship oriented (Gummesson, 1987).

Bolton and Drew (1991) explains that this complexity stresses the need for flexibility among service providers to be able to maximize the service quality, and therefore the

service value. He describes the relation between satisfaction, quality and value with the conceptual model shown in figure 2.3.

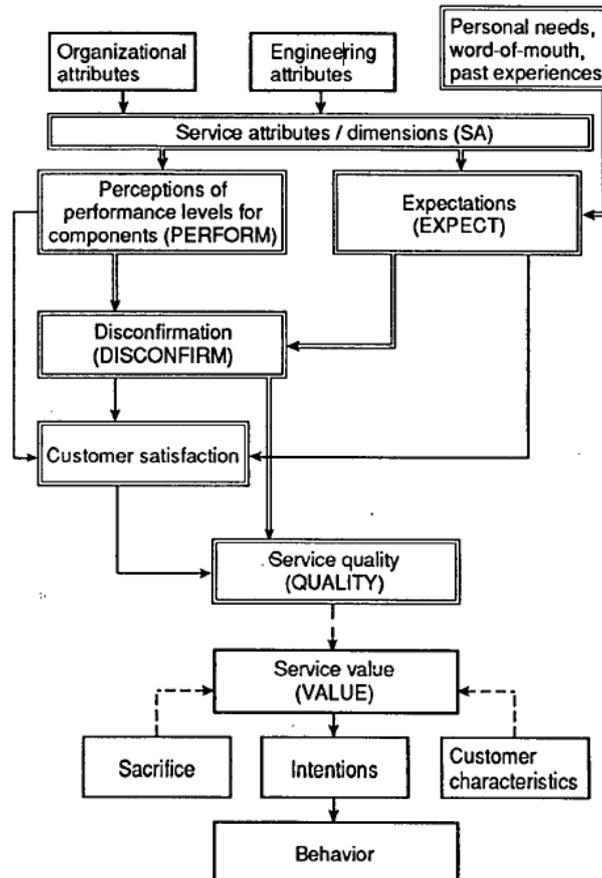


Figure 2.3: A multistage model of customers' assessments of service quality and value (Bolton & Drew, 1991)

Trust is described as an important part of value provided by business-to-business service firms (Arnott, Wilson, Doney, Barry, & Abratt, 2007). According to Arnott et al. (2007) some consensus about the term trust has emerged and is explained to be: (1) credibility, (2) benevolence. The credibility is that the service provider fulfills what is promised and stands by its word. Benevolence is that the service provider shares the same interest and will not take action that will harm the customer. A trustful relationship is when a customer has trust in both the credibility and the benevolence of the service provider. Although empirical research (Arnott et al., 2007) have shown that delivering customer's desired value will create trustful relationship, other aspects such as social interaction and customer orientation is even more important for building a strong, trustful relationship. Trust is important when developing a commitment from the customer and when expanding business opportunities.

Building a trustful relationship is essentially about providing satisfaction towards the customer by understanding the customer's value preferences (Ravald & Grönroos, 1996). As explained the customer value is determined by the sacrifice and benefit the customer receives. To build a trustful relationship the service provider can either reduce the sacrifice for the customer or increase the benefit this will lead to providing the means for a value creation. As mentioned earlier, in section 2.1.1, Stock (2005) proved that a long relationship can provide a less price sensitive service.

A relationship can be seen to consist of episodes (Liljander & Strandvik, 1995); each episode is an interaction with the customer with a clear start and end. According to Ravald and Grönroos (1996) the long-term relationship value and the more short-term episode value have different characteristics. These are described in figure 2.4. The long-term relationships are more built on trust and expectations and episode value is determined by the actual service delivery. The total value an episode carries could be described equation 2.3. The long-term relationship is deemed to be one of the most important aspects of service marketing when building competitive advantages (Gummesson, 1987).

$$Total\ episode\ value = \frac{Episode\ benefits + relationship\ benefits}{Episode\ sacrifice + relationship\ sacrifice} \quad (2.3)$$

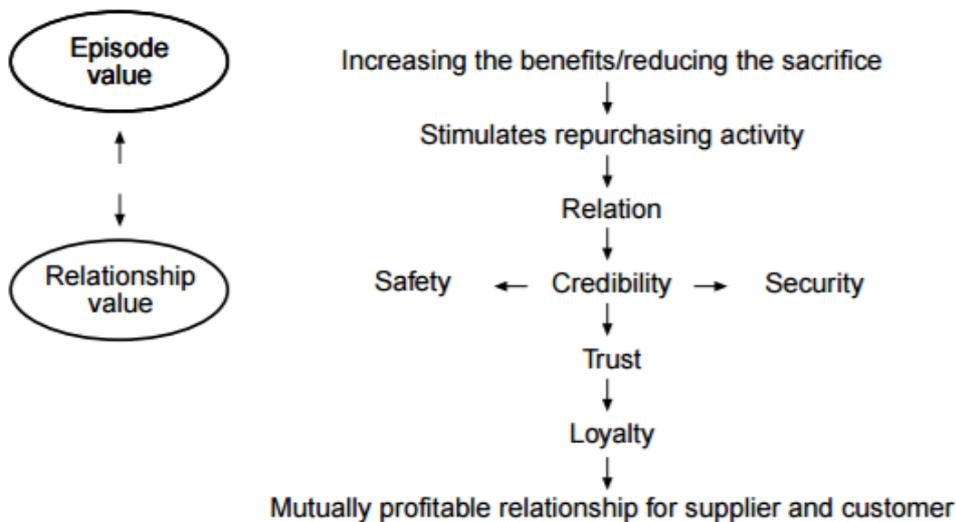


Figure 2.4: Relationship and episode value (Ravald & Grönroos, 1996)

2.3 Knowledge intensive business services

2.3.1 Definition

There lies some ambiguity in the KIBS expression and there isn't any real consensus in the definition (Muller & Doloreux, 2009; Sole & Carlucci, 2010), although several authors have made attempts at defining the KIBS sector. An early adoption of the term business services was done by Machlup (1962) and he indicated knowledge activities as key function for services. One consensus involving KIBS is, of course, their dependence on knowledge (Skjølsvik, Løwendahl, Kvalshaugen, & Fosstenløyken, 2007). To keep the knowledge capacity KIBS firm frequently use knowledge acquisition (Muller & Zenker, 2001). The definition of KIBS often relies on knowledge, and thereby keeping the knowledge capacity is utterly important for KIBS firms. Miles et al. (1995) describes three typical characteristics for KIBS as one of the first tries to define KIBS:

1. They rely on professional knowledge;
2. They are either sources of knowledge and information, or use it to create their service offerings;
3. They function mainly in a Business-to-business context;

Aarikka-Stenroos and Jaakkola (2012) pointed out that to understand customer needs communication and interaction are required, especially when the exchange is complex and included professional knowledge. Their definition leans more towards the solution and the interaction together with the customer:

1. knowledge intensity of the service provided;
2. problem solving function, and;
3. strong interactive or client related character of the service provided;

As above the problem solving function of KIBS are seen as essential for defining these types of companies. The complex solution offered is often customized and hard to standardize (Strambach, 1997). This kind of complex solution needs a lot of knowledge which leads to KIBS, and generally, increases the contact with universities and higher education. Apart from the solution part, KIBS is also described to function in the role of complex advisor, in the tradition role as a consultant (Hipp, 1999). Muller and Doloreux (2009) have tried to sum up much of the work done when trying to define KIBS. They focus on the different terms involved in KIBS and what they imply:

1. As indicated the business services, should be distributed to businesses and not for private consumption;
2. Knowledge intensive, could be referring to mainly two aspects the knowledge intensity of the labor, or in the knowledge intensity in the transaction between service provider and the service user;
3. are the sources of knowledge and information, that use human capital as their main resource in solving complex problems of intellectual nature (Alvesson, 1995; Miles et al., 1995; Muller & Doloreux, 2009).

Furthermore, others researchers defined these three characteristics for KIBS firms:

1. are innovative and can help their customer to be innovative (Lin, Chiu, Chang, & Chen, 2013);
2. are a growing phenomenon with escalation impact on the society (Lin et al., 2013; Tomlinson, 1999);
3. creating new knowledge for or with their clients with strong customer interaction, and enable a platform for collaboration and co -development (Hipp, Tether, & Miles, 2000; Lin et al., 2013);

To concretize which field that KIBS is include in, Miles et al. (1995) described examples of non-KIBS. He wrote that medical, education, transport, entertainment, traveling and media services are not included in KIBS context. Furthermore, non-KIBS is services where you can repeat and easily copy, and then transfer the service once again, which is possible when the knowledge level decrease. The definition of KIBS is still a wide concept and includes many aspects which make it complex. Sarkar, Coelho, and Maroco (2016, p. 1002) state a generalized snapshot of their main meaning, he say that “KIBS are usually identified as purchasers, providers, and transferals of knowledge or as facilitators, carriers, and sources of innovation”. This statement has support from two of the early adopters of KIBS (Den Hertog, 2000; Miles et al., 1995).

2.3.2 Research focus

The role of KIBS in today’s economy has changed during the years. From being a way of cutting cost, related to outsourcing activities, they are today more considered to be drivers

of knowledge and innovation (Muller & Doloreux, 2009). Their role have grown more important within the business community (Hipp, 1999; Muller & Doloreux, 2009; Sole & Carlucci, 2010), and this has, of course, led to enhanced research attention. The research was initiated in the beginning of the 90s when they couldn't be understood the same way as manufacturing companies (Muller & Doloreux, 2009). The empirical research of KIBS at the beginning focused on literature reflection. More recent the focus for KIBS researches have been focused on their ability to innovate and in which sense that differs from regular manufacturing firms (Muller & Doloreux, 2009). The increasingly impact of innovations have also escalated the attractiveness for KIBS. This has encouraged the industry to understand the significance in KIBS offerings and increase the customer awareness and interaction for the service offered (Miles et al., 1995; Strambach, 1994). Czarnitzki and Spielkamp (2003) state that business services can be the starting point for innovation and KIBS employees with high knowledge capacity increase the innovation opportunity for their customer.

2.3.3 T-KIBS, P-KIBS

Miles et al. (1995) in the original work, where he defined KIBS, separated KIBS into two main groups: (1) one traditional, professional-knowledge intensive business services (P-KIBS) and (2) one emerging, technology-knowledge intensive business services (T-KIBS).

Miles et al. (1995) describes P-KIBS as strongly connected to design, training and management consulting but does not include new technology. This considered as traditional KIBS: accounting, legal and financial services but does not include complex IT management system with new technology. P-KIBS solutions is instead customized and focus is on networking with high dependence on high skilled personnel (Løwendahl, Revang, & Fosstenløkken, 2001; Muller & Zenker, 2001).

Miles et al. (1995) described T-KIBS as connected to computer networks, software and technical engineering solutions. This is strongly associated to new evolving technology in new business areas with customized, high-tech solutions.

Miles et al. (1995) described the difference between T-KIBS and P-KIBS. T-KIBS is more connected to new solutions with higher technology level of the solution than P-KIBS. T-KIBS include technical engineering and complex IT management solutions, and transfer information and knowledge, which work with new and emerging solution with focus on future value (Miles et al., 1995; Sarkar et al., 2016). Lin et al. (2013) describe that P-KIBS is more related to advance manufacturing that need customized and knowledge intensive solution. In contrast, T-KIBS is more related to knowledge intensive services including technology and productive services with main focus on distribution of high personal skills.

In this study we will mainly consider T-KIBS, as described in the delimitation chapter. Our definition of T-KIBS is strongly supported, as described, in the original definition by Miles et al. (1995). The firms we considered to be included in this fragmentation are IT consultancy firms and engineering consultancy firms. Both of these firms deal with typical technological issues and need to adapt to new technology, which was one of the main criteria from Miles et al. (1995). Firms that could be considered as KIBS, but are not included in T-KIBS definition consist of: management consultancy, accountant consultancy and legal consultancy.

Generally, there is lack of research investigation that separately examines T-KIBS and P-KIBS. They are often generalized to be only KIBS, which lead to less literature that examine only T-KIBS individual. Against that background, the focus for this paper will be on T-KIBS with the main focus on technical engineering solutions.

2.3.4 Value dimensions

Customer value in KIBS have generally been researched poorly (Sole & Carlucci, 2010), but is nonetheless important for the development of research and KIBS in general. Work on different value dimensions and how they correlate lack empirical research. The theoretical research has shown the importance of a transparent, flexible and responsive service provider (Lapierre, 1997). Aarikka-Stenroos and Jaakkola (2012) state that customer in general is interested in monetary cost, effort and time versus the quality delivered by the exchange of services. At the same time, KIBS provider describe that it is impossible to provide a service solution without information about financial plan, time horizon and customer needs. To increase the effectiveness in these fields, researches encouraged the collaboration between customer and service provider with mutual promises and continues dialog to increase the co-created value. Grönroos (2011) confirmed the importance in a relationship, and states three opportunities: (1) increase margins, (2) create new markets areas and (3) increase the commitment between the parties.

Furthermore, customer that buy KIBS solutions can benefit from new ideas that KIBS firm brings and by using external competence customer can be more responsive to the emerging change in industry (Krishnamurthy, Jegen, & Brownell, 2009). Bryson, Daniels, and Ingram (1999) describe those drivers that increase customer value and result is often easy to identify, rather the problem is to isolate the drivers from each other. Indirect drivers can, therefore, create problem for the outcome of the research investigation. Hence, it is important to have well defined drivers that have good theoretical and empirical foundation.

Sole and Carlucci (2010) identifies eight different value dimensions: monetary price, non-monetary price, risk, output, outcomes, impact, relationship and methodology. These dimensions could be grouped in two sections: sacrifices (monetary price, non-monetary price and risk) and benefits (outcomes, impact relationship and methodology), as explained before the trade-off between these two categories determines the customer perceived value. On the other hand, the attention of drivers that have great impact in the early purchase phase is slightly different. Patterson, Johnson, and Spreng (1996) state five important drivers: novelty, importance of the purchase decision, decision complexity, stakeholding, and uncertainty. Indeed, the expression is rather similar, with the different focus on what the KIBS provider should do to increase the buying behavior and enhance the sales opportunities.

As explained earlier KIBS firms are often defined to have a solving function, and they are therefore needed to be customer oriented. The customer orientation depends on a understanding for the customer, and this put emphasize on the customer value (Grönroos et al., 2008; Sole & Carlucci, 2010).

Furthermore, Aarikka-Stenroos and Jaakkola (2012) put high emphasize on communication skills. KIBS firm need to have a close communication with the customer to deliver the optimal solution, and in some situations the customer may have insufficient knowledge about their problem. To tackle this kind of situation, and to always be able to provide a good solution, KIBS firm needs to be responsive, flexible, reliable and excellent at communication. These are all important value dimensions for KIBS and professional services, supported by empirical research that is needed to deliver high level of value as a KIBS provider (Aarikka-Stenroos & Jaakkola, 2012).

Aarikka-Stenroos and Jaakkola (2012); Lapierre (1997) stated the importance of a responsive, flexible and transparent service provider to meet the customers preferences. The value dimensions create the potential customer value and they consist of both benefit

and sacrifice characteristic. In the KIBS context the benefit section of customer value was described as: outcome, impact, flexibility and relationship (Aarikka-Stenroos & Jaakkola, 2012; Lapierre, 1997; Sole & Carlucci, 2010). Likewise, the sacrifices by the KIBS customer were described as: monetary price, non-monetary price, time and risk (Aarikka-Stenroos & Jaakkola, 2012; Sole & Carlucci, 2010). These are considered as important value dimensions for KIBS firms. Customer value, as described, are explicit the delivered benefit in relation to the given sacrifice.

2.3.5 Value co-creation

The value dimensions describe what the customer value, but it is realized in the value co-creation phase with the customer. As emphasized by the SDL (Vargo & Lusch, 2004, 2008) in today's marketing the value is always co-created or co-produced. This form of relationship is evident in marketing research and have been stressed by researchers (Aarikka-Stenroos & Jaakkola, 2012; Grönroos et al., 2008; Grönroos, 2011; Vargo & Lusch, 2004). When adopting relationship marketing it is important to consider value as something which is created rather than something that is distributed, it's likewise important to focus on the process rather than the results (Grönroos et al., 2008). A relationship marketing strategy isn't per definition more profitable (even though it often is the case), but can be adopted by all industries. Although, relationship seem to be important in today's business; it is not always the main focus of all customers. Grönroos et al. (2008) stated that the customer can be generalized to be either relationship oriented or transaction oriented. Lessard (2014) stated that the strategic focus should be on why the relationship is important instead of how the activities should be composed to generate the relationship.

To realize the value creation a flow of information is needed between supplier and customer. The customer needs to bring clear instructions regarding requirements, goals, schedule and budget etc. The supplier needs to bring specialist technical skills, project management skills, diagnostic skills, experience etc. Together with this information flow the activities can be collaborated and value co-created. Generally, in service marketing literature, these processes aren't seen to be co-created, but empirical evidence regarding KIBS show that the suppliers often participate in even the design phase (Aarikka-Stenroos & Jaakkola, 2012). The value proposition, discussed in SDL, is therefore co-created in KIBS relationship. To understand dimensions of customer value is important in this kind of relationships. Different perception of value may cause problems, and conflicts in the co-creation process may occur.

Aarikka-Stenroos and Jaakkola (2012) divide the collaboration process into five parts: diagnosing needs, designing and producing the solutions, implementing the solutions, managing value conflicts, organizing process and resources (see Figure 2.5 for further detail). Lessard (2014) explain the co-creation process in two different processes: aligning and integration. In the aligning process the parties align their interest and get a common understanding of the value proposition. In the integration process where the actual value proposition is realized and the outcome of the solution is seen. KIBS firms sometimes put too much emphasize on the aligning process and can sometimes negatively impact the outcome. To avoid conflicts in this area the organizations high level interest needs to be aligned.

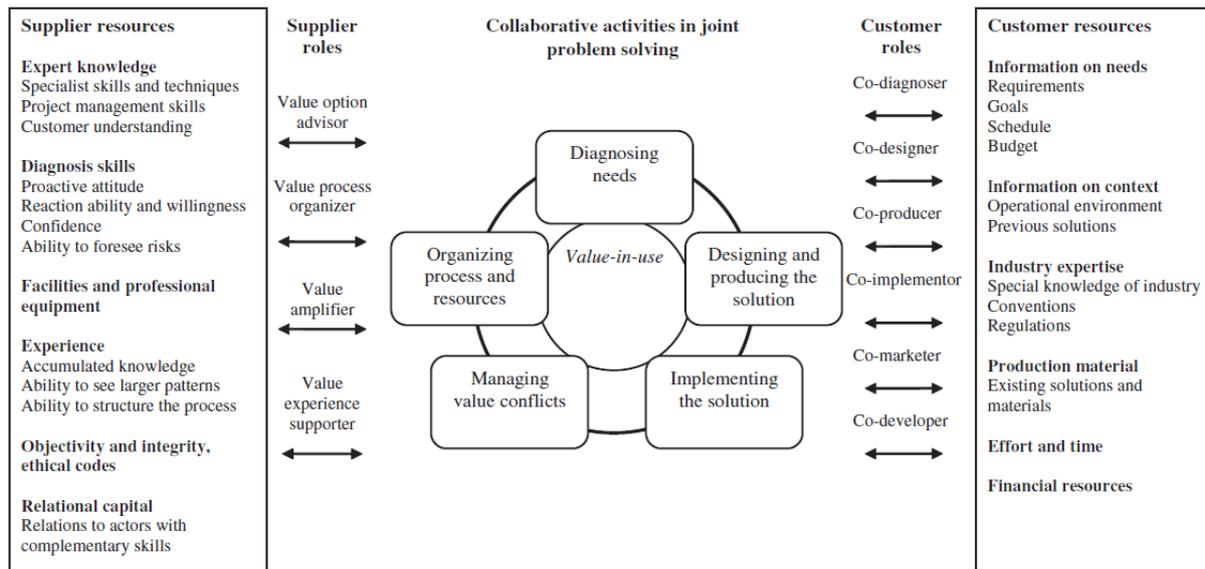


Figure 2.5: Value co-creation process in KIBS. (Aarikka-Stenroos & Jaakkola, 2012)

2.4 Summary

In the theoretical framework services and KIBS were defined. Services were described by Grönroos et al. (2008) to be co-produced with the customer and consist of processes and activities. KIBS are described to be drivers of innovation, highly dependent on high skilled employees as their main resource and function in a business-to-business context (e.g., Miles et al., 1995).

Furthermore, customer value was explored. Customer value was, in generally terms, described as the trade-off between customer sacrifices and the benefits (e.g., Liljander & Strandvik, 1995). Per definition customer value is highly subjective and hard to predefine (e.g., Woodruff, 1997). Relationship is described as an important driver (e.g., Kuzgun & Asugman, 2015) since customer value is always created in the customer sphere (e.g., Grönroos & Gummerus, 2014).

The aim for the service provider is to give the right condition for customer value creation. According to Lancaster (1966) the customer preferences depend upon the attributes, which the product or service consist of. Likewise Grönroos and Gummerus (2014) explained that these attributes give the potential for value creation, but will not, automatically, create value. These attributes are in this thesis considered as value dimensions. They provide the condition, and potential, for value creation within the customer sphere. In the figure 2.6 the correlation between value dimensions and value-in-use are described.

The value-in-use model by (Aarikka-Stenroos & Jaakkola, 2012) described the process which creates value with the KIBS customer. This thesis further investigates which value dimensions that creates the potential for value creation.

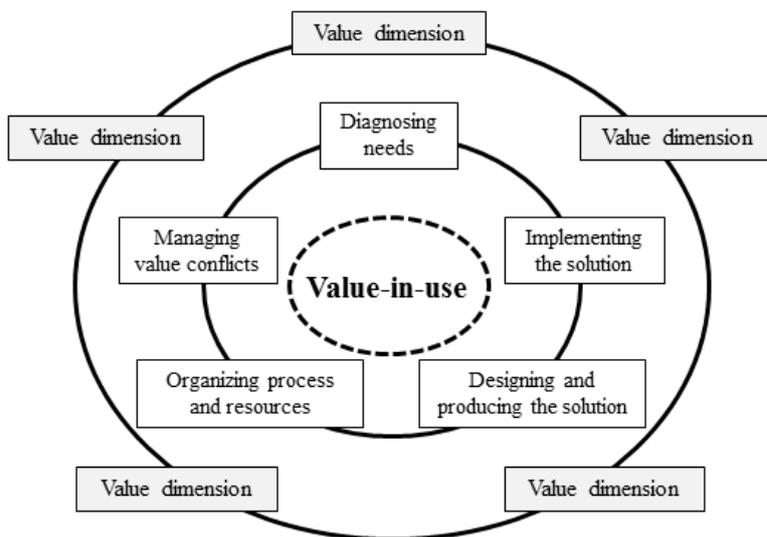


Figure 2.6: KIBS value dimensions and value-in-use. Value-in-use source: (Aarikka-Stenroos & Jaakkola, 2012)

3 METHOD

In this chapter the methodical approach is presented for this study. The chapter is divided into two sections: Research strategy and Research method. The study uses an exploratory sequential mixed method and the chapter focus on evaluating, discussing and describing the grounded theory approach and the conjoint analysis.

3.1 Research strategy

This research study was divided in two phases, one pre-study and one main study. The pre-study was done by semi-structured interviews with T-KIBS customers. The main study was conducted by a survey that used the well-known method conjoint analysis (Green, Krieger, & Wind, 2001; Green & Srinivasan, 1990). This survey is distributed to the T-KIBS customers that have up to date knowledge about the purchasing process. Afterwards, the data from the survey was analyzed by the statistical method multiplying regression. This was conducted to answer the research question about the relative importance among significant value dimensions in KIBS offerings.

In this research study the philosophies was a combination of pragmatism and positivism. This means that the empirical data were hold descriptive (Mark, Philip, & Adrian, 2009) to capture the attitudes and information about what is valuable according to the KIBS firms customer. In the pre-study a grounded theory approach was used and semi-structured interviews were the applied methodology. This first pre-study phase focused on qualitative research aspects and explained important value dimensions for KIBS customers. The conceptual framework was used to create the conjoint analysis survey, which is the main part of the study. The conjoint analysis was then used to elicit the relative importance among the value dimensions.

This research design is called exploratory sequential mixed methods (Creswell, 2013) and builds on abductive reasoning. This research design creates dependence between the qualitative and quantitative part. The outcome of the conjoint analysis is highly dependent on the conceptual framework created with grounded theory. Therefore, a poorly executed pre-study will compromise the rest of the study (Creswell, 2013).

To succeed with the mixed method approach one need to combine reality with theory. This doesn't mean that the conceptual framework should be forced to fit certain theoretical models, rather the conceptual framework should take advantage of both empirical and theoretical findings (Dubois & Gadde, 2002). By continuously evolving the framework the reality can be explained by what in abductive term can be called "inference to the best explanation" (Hobbs, Stickel, Appelt, & Martin, 1993).

As, earlier explained, customer value and preferences are highly subjective and the abductive approach gives the researcher possibility to both explain behavior (inductive) and draw conclusion from it (deductive) (Taylor, Fisher, & Dufresne, 2002). As described earlier the KIBS industry is a complex, highly skilled and heterogeneous industry that offers a broad range of services. Conceptualizing the customer value in this context will put a lot of emphasize on both understanding and also, to answer the research question about relative importance, the use of statistical tests.

A mixed method approach, together with an abductive reasoning, can likewise result in a wider understanding of the research question before drawing any conclusions (Peirce & Tomas, 1957; Taylor et al., 2002). This approach could neglect the weaknesses of the inductive and deductive approaches, and thus increasing the validity of the study (Creswell, 2013). The complex research environment of today often called for these flexible

approaches (Mark et al., 2009; Peirce & Tomas, 1957; Taylor et al., 2002), rather than choosing between the traditional inductive and deductive approaches.

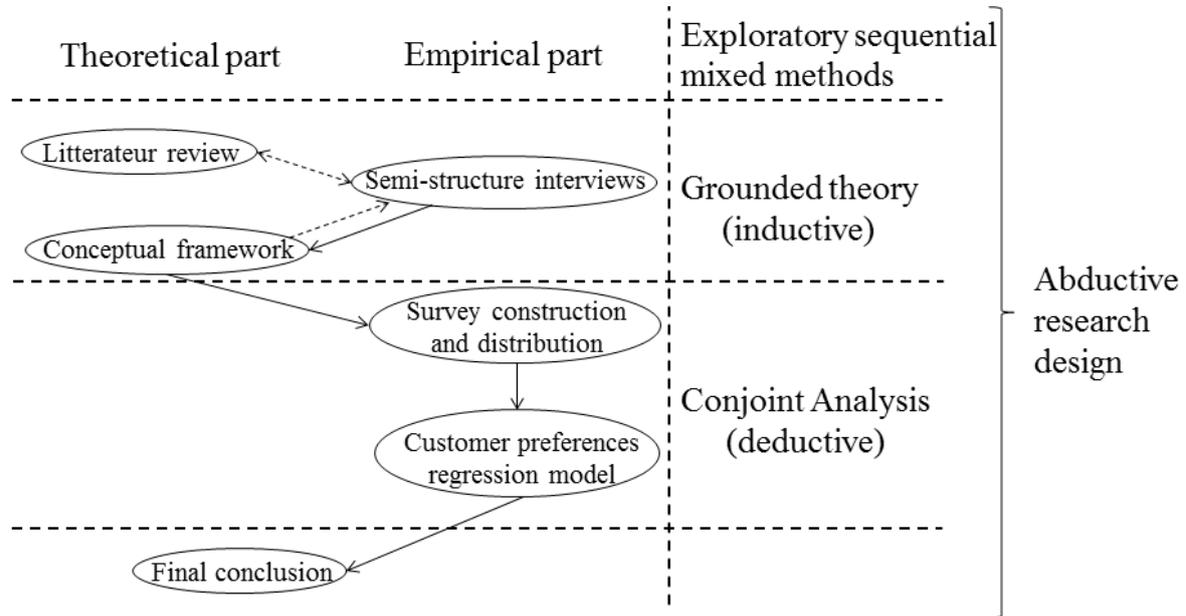


Figure 3.1: The research design of the study

In figure 3.1 the research process for this study is described. Abductive research design, as described, uses a combination of inductive and deductive approaches. The first pre-study was conducted to create the conceptual framework that later was used in the main study to create the conjoint analysis. The regression model for the customer value is later discussed with theoretical findings to create the final outcome of the study.

3.2 Research method

3.2.1 Semi-structured interviews

The first part of this study was considered as a pre-study to the main research question. The aim of the pre-study was to identify the most important value dimension for KIBS offerings. First, in this part a qualitative approach was used with semi-structured interviews (see the appendix for the full interview guide used on the subjects).

The approach was inspired by one of the most cited qualitative methods, grounded theory (Glaser & Strauss, 2009). Although the development of grounded theory has different methodological approaches the aim is to produce theory by synthesize the collected data into different categories (Charmaz, 2014). When developing the theory the researchers should be distanced from theoretical existing theory and focus the theory on the actual findings. In grounded theory the coding techniques isn't specified, rather the choice is up to the researcher, the coding is later conceptualized into different categories.

In grounded theory the conceptualization and data collection are done simultaneously (Glaser & Strauss, 2009) and this was likewise the adopted methodology in this study. During the process memo-writing, another common practice among grounded theory researchers (Charmaz, 2014) was used. Memo-writing consist of writing analytical notes about the transcribed material. These analytical memos were later synthesized into the finished conceptual framework.

Each interview was recorded and after the interview was done the material was transcribed. The analysis part consisted of coding keywords, with memory writing, and use them to create the conceptualized framework. As the foundation of grounded theory is built upon emphasize was to understand the customers thoughts about KIBS firms and their offerings. Theoretical sensitivity (Glaser, 1978) is a term commonly used among grounded theory researchers. To achieve it the researchers needs to have “An open mind not an empty head” (Dey, 2002). This means that the researchers should have few predetermined ideas about the conceptualization, although the theoretical knowledge is still important when conceptualizing, but it shouldn't be forced to fit certain theories (Dey, 2002; Dubois & Gadde, 2002; Glaser, 1978).

The methodological choices made was to ensure reliability during the interview sessions. All interviews was set-up under similar circumstances and using the same interview guide. In grounded theory the interview guide usually changes during the study. Although, the structure of the interview and the reliability are highly correlated (Conway, Jako, & Goodman, 1995). Therefore, the same interview guide was used to easier maintain the same structure and thus easier ensuring the reliability of the interview study.

The interview was tested on a smaller sample to ensure that the interview guide was understandable and this would help ensure reliability of the interviews (Ghauri & Grønhaug, 2010).

The final sample was chosen from companies that on a regular bought T-KIBS offerings. The interviews were conducted until theoretical saturation was deemed to be obtained, meaning that the interviews no longer added anything to the theoretical conceptualization of the categories. The theoretical saturation was obtained after four interviews and this was the final sample for the pre-study.

When the categories had been determined they were used as the foundation for the latter part of the research, the conjoint analysis. The conceptualized framework consisted of five important value dimensions in KIBS offerings.

3.2.2 Conjoint analysis

3.2.2.1 Data collection

The conjoint analysis have been one of the most popular research methodologies when exterminating customer preferences the last decade. In contrast to self stated willingness to pay and contingent valuation models the aim is to capture the relative importance of the customer, rather than the exact reservation price. The study aim is not to calculate any reservation price or exact willingness to pay for a certain product, rather the aim is to analyze the relative importance the customer's posses of important value dimensions in KIBS offerings. Conjoint analysis frequently occur in these research contexts (Green & Srinivasan, 1990; Huber, 1997; Rao, 2009). Different types of methodologies have been developed to be used when examining customer willingness to pay and their preferences. Some of the most common are self-stated willingness to pay, contingent valuation models and, as mentioned, conjoint analysis (Rao, 2009). Ghauri and Grønhaug (2010) clarify that the survey needs to be objective, standardized, valid and reliable. Green et al. (2001) describe conjoint analysis and states that the method is often used in marketing researches where the main purpose is to analyze how people value different characteristics. This problematization corresponds to the research question of this study.

The conjoint analysis have given much attention in the last decades some studies suggest that conjoint analysis does not have higher validity than simpler self-explicated

method (Leigh, MacKay, & Summers, 1984). Although the same study (Leigh et al., 1984) would favor conjoint analysis if the attributes are not obvious. Self-explicated weights seem to be equally good when comparing product and services where the nature of the attributes is explicit known. The rather complex methodology of conjoint analysis is therefore not always the best alternative, and (Huber, 1997) explains that the validity of the conjoint analysis study is always dependent on the reasons behind adapting the methods. As described before the KIBS offerings are heterogeneous in nature, and therefore the attributes are not obvious. The heterogeneity of the industry calls for the conjoint analysis methodology, although Leigh et al. (1984) suggest that having self-explicated weight together with conjoint analysis is a strategic choice because of the low extra cost it carries. The self-explicated weights are often used as an extra check towards the conjoint analysis results and are sometimes recalled as hybrid approaches. The hybrid approach uses the full-profile approach, which has been deemed to have high validity when determining customer preferences among attributes (Green & Srinivasan, 1990), together with the use of self-explicated weights that provides further analysis, thus providing alternative checks for the validity.

Because of the popularity of conjoint analysis type of methods, a lot of different ones have emerged and choosing the right one is likewise crucial for a good research study. A conjoint analysis is usually consisting of, or a combination of both, self-explicated ranking for the different attributes or a pair wise comparison. Some obvious reasons occur for pair wise comparison when there are several variables in the study, relatively quick they become quite comprehensive. Adaptive conjoint analysis have been developed to deal with this issue (Johnson, 1987). Adaptive conjoint analysis have been proven to not have higher internal validity than usual conjoint analysis (Agarwal & Green, 1991) although it greatly reduces the amount of effort needed, thus making the study significantly cheaper to conduct. However adaptive conjoint analysis really excels when more than six attributes needs to be considered, comparing to traditional conjoint analysis the adaptive conjoint analysis can make it possible to use up to twenty attributes.

In this study a hybrid methodology based on traditional full-profile conjoint analysis was used. As explained above the hybrid methodology can ensure a higher validity when comparing the result of conjoint analysis and the self-explicated weights. The number of attributes used in the study where five, which makes the traditional conjoint analysis method a suitable choice.

Adaptive conjoint analysis method could provide a more comprehensive alternative, although the validity is not higher when dealing with a relatively small set of attributes (Agarwal & Green, 1991). Adaptive conjoint analysis is a more suitable method when dealing with studies that have over six attributes (Orme, 2002). When using more than six attributes in a traditional conjoint analysis greatly increase the risk of the respondent using simplification tactics to deal with the cognitive stress.

The attribute typically consist of 2-5 levels, although it is possible to combine these levels as you want problem with the “Number-of-level-effect” may occur. This means that respondents tend to over-evaluate attributes that have more levels than those who have fewer (Orme, 2002). Best practice for quantitative level is to keep them at a minimum and not exaggerate the number of levels. Quantitative level should likewise be concrete and not be states as 1-5 years, rather to state a specific quantity like 5 years is preferable (Orme, 2002).

Five different attributes were considered. The attributes had two or three levels and this approach decreased the number-of-level-effect and it likewise decreased the number of profiles the respondents needed to consider. The number of profiles to be considered

were still be too many if traditional full profiles approach is used. An orthogonal design was used to deal with the comprehensive number of available profiles; the total number of unique profiles can be described as $3 \times 2^4 = 48$. The orthogonal design takes 8 of these unique profiles and the sample will still be statistically valid. The orthogonal plan used is the one proposed by Addelman and Kempthorne (1961).

Furthermore, a scale ranking method was used to determinate the respondents preferences for the profiles. The ranking scale has grown increasingly popular and is now more popular than the original ranking based procedure. The respondents ranked how likely it is that they would buy the profile on a scale from 1-100, where 100 is very likely and 1 is unlikely. This is described by Green et al. (2001) as one of the most common practices and is more popular than the more traditional ranking procedure. The rating procedure is deemed superior when determining customer preferences (Sayadi, Roa, & Requena, 2005), which is the aim of this study. The rating method is often used when the nature of product or service is comparative, meaning that the real-life purchase process is evaluating different options against each other (Huber, 1997). KIBS offering are often set in a comparative process where certain tenders are evaluated from different firms; therefore the rating method was used over the ranking method. As earlier described a self-explicated model is a good alternative to complement the traditional conjoint analysis with (Huber, 1997; Leigh et al., 1984). The respondents, in the survey, distributed a total of 100 points across the different value dimensions to indicate the importance. This self-explicated model was compared towards the result of the conjoint analysis.

The conjoint analysis survey was distributed via e-mail. The respondents were notified, in advance, by phone and were asked if they wanted to participate in the survey and if they had the sufficient knowledge. This was done to ensure the quality of the sample. The final sample chosen was 42, even though small it is in line with other conjoint analysis done in marketing research (Akaah & Korgaonkar, 1988; Debély, Dubosson, & Fragnière, 2006). Although one limitation of the study is that the sample is lower than the total number of unique profiles (48). This limitation effect the standard deviation of the results negative, and a bigger sample would ensure more stable results. The 42 participants were from 18 different companies, that on regular basis bough services from traditional T-KIBS firms. The 40 respondents were all involved in either the direct buying process or the strategic decision related to the outsourcing or buying certain services. After the answers were collected and summarized in a sheet. The sample consisted of 35 answers, which gave a response rate of 83.3 %.

The conjoint analysis survey was afterwards distributed towards group managers at Rejlers Sverige AB. This would further enhance the robustness of the study, and give the possibility to see if KIBS providers and KIBS customers have an aligned view on customer value. The final sample the group managers consisted of 30 with a total of 19 answers. This gave response rate of 63.3 %.

3.2.2.2 Data analysis

Ordinary least square (OLS) method was used for calculation of the part-worth utilities. The part-worth utilities corresponds to the regression coefficients in the regression equation. It is the most common method for estimating linear regressions and has frequently been used among conjoint analysis researchers. OLS seem to be equally appropriate as other methods such as partial least squares when calculating part-worth for conjoint analysis (Jaeger, Mielby, Heymann, Jia, & Frøst, 2013). Five value dimensions had been chosen for the conjoint analysis and all of them are assumed to be linear. One of the attributes

had three levels and the rest had two. It is common to use only two levels when dealing with linear conjoint models (Louviere, 1988). One down-side with using only a two level design is that one cannot capture non-linearity and these are, therefore, often referred to as end-point design (Louviere, 1988). Although if the attribute is linear this wouldn't be a problem and using only two levels decreases the complexity and comprehensiveness of the survey. Although, capturing non-linearity in certain attributes could be of research interest, although the main aim of the study is to investigate the relative importance and end-point designs are sufficient for that. The levels were coded as described in table 3.1 below.

Table 3.1: *Attributes and chosen levels for the conjoint analysis.*

Attributes, Coded levels	0	1	3
Competency	Less than, or equal, to the customer	More than the customer	
Relationship to the firm	None	2 years	10 years
Price	Low	High	
Introduction needed	No	Yes	
Delivery start according to acceptance	No	Yes	

In conjoint analysis the regression coefficient, or beta (β) coefficient, are usually called part-worth utilities. The β -coefficient shows how much the dependent variable Y changes when the independent variable x changes. In the case of multivariate regression the β -coefficients in the regression equation corresponds to the partial derivative of each variable. The partial derivative of variable x_1 is described by $\frac{\partial f}{\partial x}$. The part-worth utilities of the conjoint analysis corresponds to regression coefficient in regular regression analysis. Regression analysis is a common method in business studies (Ghauri & Grønhaug, 2010) and aim to explain causality, meaning the relationship between cause and effect. The aim was to explain which value dimensions that is most important for the KIBS customer. This is a causality relationship, i.e. value dimensions describes the value generated, and regression analysis was used to describe this relationship. OLS will fit a linear equation with the minimum residuals. The linear regression equation is described by equation 3.1.

$$Y = \alpha_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \varepsilon \quad (3.1)$$

where:

Y = The customer valuation of the profile ranging from 1-100

α_0 = the constant, or intercept, of the regression equation

β_n = the regression coefficient that indicate the change in Y when changing x_n

x_n = the level of the value dimension

ε = the error term

The part-worth utilities was generated together with the standard error. The relative importance attribute was reported and these should correspond to the part-worth utilities if this is not the case further analysis was needed. The relative importance was calculated by using equation 3.2 .

$$importance_i = 100 \times \frac{mean_i}{\sum_{i=1}^5 mean_i} \quad (3.2)$$

where:

$importance_i$ = the relative importance of the value dimension i in the conjoint analysis.

$range_i$ = is the highest minus lowest utility for value dimension i

The means and standard deviations for the self-explicated study was likewise calculated. The result of the part-worth utilities were also analyzed compared to the self-explicated survey. The values from the self-explicated was summarized and a relative importance was calculated and compared with the conjoint analysis result. This is done to further enhance the robustness of the survey and the study. The equation used for calculation of the relative importance in the self-explicated model can be seen in equation 3.3.

$$importance_i = 100 \times \frac{mean_i}{\sum_{i=1}^5 mean_i} \quad (3.3)$$

where:

$importance_i$ = the relative importance of the value dimension i in the self-explicated model

$mean_i$ = is the mean for value dimensions i in the self-explicated model

Simulations were conducted to further investigate the conjoint model. The simulation used the regression equation to simulate the hold out cases and predict their valuation. The method for the simulation was max utility, which is one of the common simulation techniques when dealing with maximizing the utility. The technique is widely used and especially in conjoint analysis which aims to investigate product or services that have a big involvement from the customer (Lilien, Rangaswamy, De Bruyn, Mary, & Frank, 2007). The max utility method assumes that the customer will always choose the possibility that maximizes the utility this is likewise one of the premises on customer preferences theory.

The Kendall tau correlation between the holdout cases and regression model was calculated and analyzed. This was to ensure the cross-validity of the study and that the conclusion was statistically validated. The part-worth utilities and relative importance was then presented and analyzed. The relative importance between the value dimensions answered the main research question.

4 RESULTS: PRE-STUDY

In this chapter the pre-study results are presented. The chapter is divided into two sections: The interviews and The conceptual framework: KIBS value dimensions. The chapter gives a brief introduction of the interview participants; the focus is on the qualitative assessment of the interview leading to the conceptual framework.

4.1 Interviews

In the pre-study four different interviews were conducted. In this section the findings in the interviews thematically categorized and summarized. The interview subjects are referred to as IP (Interview person) below in table 4.1 a brief introduction to the subjects without compromising the confidentiality.

In the interviews the KIBS provider are frequently referred to as a consultant. This corresponds to the KIBS role as described by Hipp (1999).

Table 4.1: *A brief introduction of the interview subjects.*

Interview person	IP1	IP2	IP3	IP4
Position	Supplier manager	Automation manager	Product development manager	Product life cycle manager
Business	IT	Manufacturing	Manufacturing	Manufacturing
Site size	Large	Large	Medium	Medium

4.1.1 The role of KIBS

All of the research respondents explained that they use technical consultancy services, at least to some extent, to deal with uneven workload. These types of consultants are hired on an hour-based fee and usually with a specified time frame. Consultants are also hired as experts to deal with problem where the company is lacking competency.

IP 3 (personal communication, February 9, 2017) describe that they usually do not use consultancy to balance workload “Some companies have consultant to balance workload because they don’t want to hire new employees. We hire employees when we need to.” This is something that is confirmed by IP 4 (personal communication, February 17, 2017). “There have been some years where we haven’t hired employees at all, the need have been filled with only consultants.” These different approaches can be directed towards the financial well-being of the company. In tough times hiring employees may not look like a great alternative.

The consultants often have the responsibility of a project manager or some specific technical part. The uneven workloads often stem from a project based organization and all of the interviewees used the consultants on project basis. This way of using consultants are seen as efficient because they can focus solely on the project and make progress towards the projects goal. Evaluations of the consultants are often done after projects and the consultant may, if successful, get an extension with another project.

Consultancies are seen as way of getting new view of their businesses. Their competencies are throughout the interviews explained as broad. IP 3 (2017) explain that they see consultants as a way to enhance their knowledge network “We try to work a lot with networks. We need to have our peers so we can get crème de la crème out there. We can either call someone who refer another contact for the knowledge or get it directly.” IP 2 (personal communication, February 7, 2017) elaborate on what the broad competency

might bring “It is really often we have discussion in the division and then the consultant can say: ‘we did it like this in that place and it worked really great’”

Although a consultancy is used to establish network they are not seen as drivers of innovation. All of the interviewees did not think of consultants in term of innovation providers towards product development. IP 4 (2017) can see consultants sometimes bring extraordinary solutions, whom may be innovative but it’s more on an individual basis “But it isn’t certain that a consultant is more innovative than an employee, it is still more based on the individual.”

Some of the interviewees talked about bigger projects where the technical consultancy firms can take full responsibility for the delivery. In this case the consultancy firm takes responsibility for allocating resources, project management and the delivery of the solution. IP 3 (2017) explained that this often was done when the project was far from their core competency; IP 4 (2017) states that it could be efficient when the resources are scarce.

4.1.2 KIBS purchasing process

According to the interviews the purchasing process is similar for the small as for the large customers of KIBS provider. The difference is that the large companies have agreements with different providers which include predetermined price levels depending on the consultants experience. It can also include other specific conditions, but in general the principals for purchasing process are the same with or without an agreement. All the interview persons state that the process starts with a customer need and from that a problem statement is created. Then, the providers send a request on the problem statement including an offered proposed solution, a tender. Afterwards, the customer chose one of the KIBS providers tender that they believe is the most suitable for the specific mission.

In this roughly described process, trust is described as one important factor and KIBS provider can build trust through different approaches. The interview persons describe that it is important to have the understanding on the customer business activity and their work competency, which can create willingness to pay when increased certainty for the customer is generated. To achieve this, the physical meeting is significant. Otherwise it is difficult to get that kind of confidential relationship. Furthermore, all interview persons agree on that needs does not just appear without any reason, and describe that being little restrictive in the offensive while searching for new missions can be preferable. IP 2 (2017) state that being to urgent can be counterproductive in the selling process, and say that “I like to go for the investigative activity itself. I’m not really fond of being called, especially when they are very persistent, calling and emailing very often. Need arises, but they arise after something had happen.”

However, to build trust as KIBS provider, the personnel at the firm should have similar approach and philosophy, especially the sell force and the service provider from the KIBS firm, so they are transparent and have the same target. That will increase the customer understanding about the aim with the KIBS providers businesses and thereby simplifies win-win opportunities. This is an important part while talking about value. Indeed, collaboration with customer generates opportunities that create value through KIBS offerings.

IP 4 (2017) state that today is the flexibility from the KIBS firm not satisfying. “It is often as it is today, all consultants are hired, they can ’t pick from other customer and all is leased. There should be someone, so that the consultancy won’t calculate with one hundred percent occupancy rate, they will not create flexibility for the end customer.” To clear up, collaboration in an earlier stage is suggested in combination with increased

sacrifices from the KIBS firm where they show a desire for mutual value creation which enable opportunities for development. All of the interview persons agree that KIBS firms needs to excel at understanding customer needs. IP 3 (2017) stated that they often use KIBS firms to gain specialist knowledge in fields they lack competency in. This competency is a precondition for a successful business and for firms that strive to improve, IP 3 (2017) stated.

Above all, to supply customer with knowledge all interviewees agree on that the customer understanding is important and even more when the customer has needs of hiring people that generate precondition for a business that is at the highest level in the world.

4.1.3 The KIBS value dimensions

Competency is one word that continuously occurred during the interviews, and is, generally, regarded as important. The interviewees explained different kind of competencies like social competency, theoretical competency, work competency and local competency. IP 2 (2017) explain the work competence and local competence. “The fundamental competence, for example in electrical engineering or programming, that you know your work. Then we also have the local competence at the specific location. It takes some time to learn that too.” The social competence throughout the interviews considered as important. With high social competence introduction time could be shortened because the consultant can quickly build up a network within the company and ask the right question to the right people.

Flexibility is something that is considered important aspect as well, especially in terms of providing a consultant with short notice. The interviewees seem to agree that building a long term-relationship with both consultant and consultancy firm is to prefer, although with some distinct differences. The long term-relationship make the consultancy firm understand their needs better, IP 4 (2017) explain a relationship towards a consultancy firm “We know each other quite well and our needs and we also know how fast it can go in any direction. Sometimes we are in a need of a resource quick, or sometimes we don’t need a resource any longer.” Although not all of the interviewees value a relationship with the consultancy firm, but rather just the relationship with the particular consultant IP 2 (2017) states “I think that in most situation it is enough to only have contact with the consultant on the site. If it is something concerning our company and the consultancy firm. Then the consultant in question can bring forward this for us.” The companies that strive for more flexibility towards the consultancy firm seem to value the relationship towards the firm more, and may therefore be considered as a way of achieving more flexibility.

Price, just like competence, is continuously brought up in all of the interviewees. The companies seem to be price sensitive towards consultancy services. Several of the interviewees pointed out that they want to see consultancy firm cutting their cost as well. Price is regarded one of the most important factor when comparing different firm’s offerings IP 4 (2017) explains “Today we compare only on price really, but it’s the individual that make the difference. We often buy individuals today, but that is something that we would like to move away from.”

Some aspects such as efficiency might motivate a higher price, although isn’t that often it actually does. If the consultant is already known inside the company and therefore knows their routines and processes it could likewise increase the customers’ willingness to pay. The introduction cost is seen altogether as an important part when weighting different offerings. A consultant that have been at the company is higher valued.

Trust and reliance is something that is generally described as important in consultancy relationship. The reliance and trust is that the firm will deliver what is promised. The companies doesn't seem to consider consultancy services as something related to high risk, because of the trust in the firm and consultant to deliver what is promised. IP 2 (2017) explain that he rarely sees consultancy services as a big risk "I have never thought about it in those terms. Or have I? No... the consultants we have now are very stable." IP 3 (2017) have a similar opinion but elaborate on another aspect of risk "Well, it is this with the confidentiality, even though we have a contract with the supplier it is always down to the individual level if they will leak anything and it's very hard to control." IP 4 (2017) elaborated on sharing some of the risk with the consultancy firm. "If it was my own resource it would have been my responsibility to cover up the need with my people. But if I hire a consultant I want the consultancy firm to take that responsibility – if person A is missing, replace him with person B."

Although a lot of offerings is down to the individual. All of the interviewees talked about a self-going personality that takes a lot of own initiatives in terms of creating a network and asking questions. IP 4: "If you can ask for the help you need, and know when you need it, is often better than trying to figure it out yourself". IP 1 (personal communication, February 6, 2017) talked about the importance of being "your own technical leader". The social competency, as mentioned before, is considered to be important and IP 3 (2017) explained the importance of a consultant to have the ambition to "become one of the gang" in every project.

4.2 The conceptual framework: KIBS value dimensions

4.2.1 Introduction

Together with the literature review and interviews several value dimensions for T-KIBS services had been identified. They were presented below and together create the conjoint analysis. The conjoint analysis was in depth described in the method chapter.

The five value dimensions had been identified as important by the KIBS customers during the pre-study interviews and parallels were also drawn to the literature review. The value dimensions were divided into either two or three levels. By not having a high variation in the number of levels in the attributes the "number-of-levels-effect" will not have any impact on the result. In traditional conjoint analysis more than six attributes would be too comprehensive for the respondents and therefore five were used in the study.

The heterogeneity of the T-KIBS business and the subjective nature of customer value, meaning each customer will have their own preference, are aspect that make the possible attributes comprehensive. The evaluation of the possible value dimensions are carefully considered, but will still be subjective to the author's choice. The chosen value dimensions are presented below (see table 4.2).

Table 4.2: *The value dimensions and their levels*

Attributes, Levels	Level 1	Level 2	Level 3
Competency	Less than, or equal, to the customer	More than the customer	
Relationship to the firm	None	2 years	10 years
Price	Low	High	
Introduction needed	No	Yes	
Delivery start according to acceptance	No	Yes	

The conjoint analysis method presents fictive KIBS offering to the customer. These offerings were created by combining the value dimensions levels. The objective was that customers would make trade-offs between the different value dimensions by grading the fictive offerings. With this information the customer preference for the different value dimensions was calculated.

4.2.2 Competency

The competency is something that has been brought up by every interviewee. Different types of competency have been requested in the interviews. There have been needs for special competency, competency that the firm currently does not possess, but also lower competency for repetitive work.

The competency were assumed to be highly correlated with the output of the consultant (Sole & Carlucci, 2010). A high output is more likely with a higher competency and the impact of the solution will be higher. The quality of service (Grönroos et al., 2008) is always dependent on the competency and professionalism on the service provider. The level of competency needed will always be based on the need of the customer, which isn't necessarily the same for every customer. It will likewise be dependent on the current knowledge level of the customer; therefore the level of competency, as defined in this study, will have the premise in the customer rather than the consultancy firm.

The two levels of the competency is: less or equal competency as the customer, and more competency than the customer. The first level reflects when a consultancy is needed in more repetitive low-competence work or in more staffing related issues. The second level will reflect the need of special competency in areas where the customers have substantially less competency than the KIBS provider.

4.2.3 Relationship to the firm

In the interviews the relation to the firm has been a recurring subject. Two of the interviewees felt the need for a long-term partner relationship was important for them. Grönroos et al. (2008) stated the importance of relationship in service marketing. Sole and Carlucci (2010) identifies relationship as one of the eighth value dimensions in KIBS offerings and Vargo and Lusch (2004) explained relationship as a key to succeed in today's economic environment.

The three levels chosen were none, two year and ten years. They sought to reflect that the customer have no relationship to the consultancy firm, a short relationship (two years) and a long relationship (ten years). The level none reflect the possibility of a new consultancy firm that the customer have no relationship with. A short relationship indicates that the partnership in the early stages and a long relationship is a well-established partnership

4.2.4 Price

One of the most fundamental parts of the customer value is the price. In most adoptions the price is the most obvious sacrifice for the customer when determining the customer value (Sole & Carlucci, 2010; Sweeney & Soutar, 2001; Zeithaml, 1988). Throughout the interviews the price appears to be a crucial aspect when deciding the KIBS provider to hire for a certain project. How important the price is compared to the other value dimensions indicates the price elasticity for the services. If price is an important factor it would indicate the need of new service concepts and pricing models.

The price is divided into two different levels: high price and low price. The higher price were presented as 50 % higher than the lower price. The heterogeneity of the T-KIBS industry makes it hard to set an actual price. However, this will still give a good indication on how important the price is relative to other identified value dimensions and this is the main objective of this study, rather than investigating an actual reservation price for the service.

4.2.5 Introduction needed

In the interviews the subjects strongly emphasized on how fast the consultant could get into the new tasks. Consultants that possess high knowledge of the customer business, for example as former employees or consultants are often favorable because of this. In literature this often is expressed as non-monetary cost (Sole & Carlucci, 2010), or indirect cost, and is the cost that is not directly related to the price paid. In the interviews the introduction was often referred to as an indirect cost or inefficient.

Another important aspect in the service literature is risk (Docters et al., 2004; Sole & Carlucci, 2010). If an introduction is not needed it will decrease the indirect cost, but it will also decrease the risk for the customer. If they know the consultant ,whom will execute the task, they can better estimate their capabilities. The risk of getting the wrong consultant might therefore be substantially lower. Although, as suggested by some of the interviewees, the risk of higher price could not be considered as the only risk, rather it is just one of many. The spill-over and transfer of knowledge is one risk that is not captured by this value dimension.

The introduction needed is divided into two levels: yes or no. This indicate how important the relationship to the consultant is. If the customer have a relationship with the consultant, from previous projects, it is more likely to know the customers routines and processes. This results in a lower introduction cost.

4.2.6 Start of delivery according to expectation

In the early purchase process the need of a flexible and responsive service provider is important (Lapierre, 1997). In the interviews two companies explained that a need may rise fast and they therefore need a flexible and responsive service provider. An expected date of delivery is often specified when sending a request to a consultancy firm. The aspect aim to measure if the KIBS firm can meet that date, divided into two levels: yes or no.

A flexible consultancy will be able to meet a customer demand on delivery date more often than not. This value dimension likewise become interesting when comparing towards other aspects like price and competency and gives the customer an interesting trade-off situation which is the aim of conjoint analysis.

5 RESULTS: CONJOINT ANALYSIS

In this chapter the main-study results are presented. The chapter is divided into three sections: KIBS customer, KIBS provider and summary. This chapter revolves around the conjoint analysis results, both for KIBS customer and KIBS provider. The deviations between the two groups are then presented in the summary section.

5.1 KIBS customers

The survey was distributed to 42 KIBS customers. The final sample consisted of 35 answers, which gave a response rate of 83.3%. This gave a total number of 350 observations ¹ (70 holdout cases included). The result of the conjoint analysis is presented in table 5.1. The conjoint analysis indicates that competence is the most important value dimension followed by, start of delivery and price. This would indicate that KIBS customer's value competency and a flexible service provider above a low price. The second least favorable value dimension in the conjoint analysis was relationship to the firm followed by the least favorable value dimension introduction needed. This result indicates that KIBS customer's value relationships, both with the firm and the person performing the service, substantially less than the top three value dimensions.

Table 5.1: Part-worth and standard error from the conjoint analysis.

Value dimension	Part-worth	Standard error
Price	-11.9	3.52
Introduction	-3.94	4.04
Relationship	4.51	2.11
Level of competence	19.78	3.52
Start of delivery	21.52	3.52
Intercept	22.99	4.54

Note: $R^2 = 0.98$, $N=35$, $p < .001$

To assess the cross-validity of the survey kendall tau correlation for the hold out cases. The correlation significantly supported the cross-validity, which indicated a good prediction of the conjoint analysis $r_\tau = 1.000$, $N = 35$, $p = < .001$. The R^2 was presented in table 5.1 and indicated a significant internal validity of the conjoint model.

The results from the self-explicated survey are presented in table 5.2. Competency was regarded as the most important. The standard deviations from the self-explicated model are substantially higher due to the lower number of observations. This indicates that more of the results are in the error margin compared to the conjoint analysis.

In table 5.3 the relative importance from the conjoint analysis and self-explicated model are presented. Competency were the most important value dimensions in both of the methods, although some deviations between the two models occurred and will be discussed more in depth later. Competency, start of delivery and price were the three most preferred value dimensions in both models.

In table 5.4 the simulation cases are reported. The simulation cases were chosen to simulate the importance of sacrifice and benefit. Simulation case 1 represent a high price

¹Each profile in the conjoint analysis gives one observation, each survey consisted of 10 profiles: $35 \times 10 = 350$ observations

Table 5.2: Mean and standard deviation from the self-explicated model: KIBS customers

Value dimension	Mean	SD
Price	23.2	14.65
Introduction	13.17	11.13
Relationship	11.85	9.61
Level of competency	34.46	13.31
Start of delivery	19.06	9.86

Table 5.3: Relative importance, by value dimension, from conjoint analysis and self-explicated model: KIBS customers

Value dimension	Conjoint analysis	Self-explicated model
Level of competency	27.21 (1)	33.87 (1)
Start of delivery	26.64 (2)	18.73 (3)
Price	16.45 (3)	22.80 (2)
Relationship	16.31 (4)	11.65 (5)
Introduction	26.64 (5)	12.94 (4)

and introduction but overall appealing levels the beneficial value dimensions. Simulation case 2 represents a low price and introduction but overall unappealing levels for the beneficial value dimensions. The probability of purchase for profile 1 was 88.6 % and for profile 2 was 11.4 %. The simulation indicated that high benefit are more important than a low sacrifice.

Table 5.4: Simulation cases for the conjoint analysis

Profile	Price	Introduction	Relationship	Level of competency	Start of delivery
1	High	Yes	10 years	More than the customer	Yes
2	Low	No	None	Less than, or equal, to the customer	No

5.2 KIBS provider

To increase the robustness of the study and further evaluate the result the survey was distributed to KIBS provider that is responsible for the offerings to the KIBS customer. The survey was distributed to 30 group managers at the KIBS firm Rejlers Sverige AB. The final sample consisted of 19 answers, which gave a response rate of 63.3%. This gave a total number of 190 observations ² (38 holdout cases included).

The result of the conjoint analysis is presented in table 5.5. The conjoint analysis indicates that relationship to the firm is the most important value dimension followed by, start of delivery and competency. This would indicate that the KIBS provider think that KIBS customer´s value relationship to the firm and a flexible service provider above high competence. The least favorable value dimension in the conjoint analysis was price followed by the second least favorable value dimension introduction needed. This result

²Each profile in the conjoint analysis gives one observation, each survey consisted of 10 profiles: $19 \times 10 = 190$ observations

indicates that KIBS provider thought KIBS customer's value price, substantially less than the top three value dimensions.

Table 5.5: *Part-worth and standard error from the conjoint analysis: KIBS Providers*

Value dimension	Part-worth	Standard error
Price	0.48	2.88
Introduction	-7.59	3.30
Relationship	15.21	3.44
Level of competence	10.59	2.88
Start of delivery	13.09	2.88
Intercept	21.80	3.70

Note: $R^2 = 0.98$, $N=19$, $p < .001$

To assess the cross-validity of the survey kendall tau correlation for the hold out cases. The correlation significantly supported the cross-validity, which indicated a good prediction of the conjoint analysis $r_\tau = 1.000$, $N = 19$, $p = < .001$. The R^2 was presented in table 5.5 and indicated a significantly high internal validity of the conjoint model.

The results from the self-explicated survey are presented in table 5.6. Competency were regarded as the most important The standard deviations from the self-explicated model are substantially higher due to the lower number of observations. This indicates that more of the results are in the error margin compared to the conjoint analysis.

Table 5.6: *Mean and standard deviation from the self-explicated model: KIBS Providers*

Value dimension	Mean	SD
Price	23.11	9.77
Introduction	9.32	6.75
Relationship	20.68	10.41
Level of competency	31.47	10.36
Start of delivery	15.42	7.49

In table 5.7 the relative importance from the conjoint analysis and self-explicated model are presented. There were some deviations in the results between the two models, although this is discussed later. Competency and relationship were the two most preferred value dimensions in both models according to KIBS provider's preferences.

Table 5.7: *Relative importance, by value dimension, from conjoint analysis and self-explicated model.*

Value dimension	Conjoint analysis	Self-explicated model
Relationship	37.95 (1)	20.68 (3)
Start of delivery	18.66 (2)	15.42 (4)
Level of competency	18.17 (3)	32.47 (1)
Introduction	13.44 (4)	9.32 (5)
Price	11.77 (5)	23.11 (2)

5.3 Summary

In table 5.8 the summarized results from table 5.3 and table 5.7. The results are sorted after the deviation in percentage, followed by deviations in numbers and the results from the customers and service provider. A negative deviation in the second column indicated a under-valuation from the KIBS group managers, and a positive deviation indicated a over-valuation from the KIBS group managers.

The value dimension with the most deviation was relationship. The deviation for relationship was substantially higher than the other four value dimensions. The relationship was regarded as the most important by the suppliers, and the fourth most important by the customers, indicating that the providers over-value the meaning of the relationship in KIBS offerings.

The deviation was the second largest in competency followed by start of delivery and price. All these three value dimensions were under-valued by the providers, indicating that the customer values them more than the providers thought. The value dimension with the least deviation was introduction cost. The deviation was small and this indicates that the customers and providers are aligned in terms of the importance of this value dimension.

Generally the deviation was substantial between the two groups. One of the value dimensions saw a larger amount of deviation, three of them saw a relative substantial amount and one of the dimensions seemed to be aligned with each other. Figure 5.1 shows the comparison illustrated in a radar chart.

Table 5.8: Comparison between customer and service provider results in the conjoint analysis.

Value dimension	Deviation %	Deviation	Customers	Group managers
Relationship	79.76 (1)	21.64	16.31 (4)	37.95 (1)
Level of competency	39.84 (2)	-9.04	27.21 (1)	18.17 (3)
Start of delivery	35.23 (3)	-7.98	26.64 (2)	18.66 (2)
Price	33.17 (4)	-4.68	16.45 (3)	11.77 (5)
Introduction	0.373 (5)	0.05	13.39 (5)	13.44 (4)

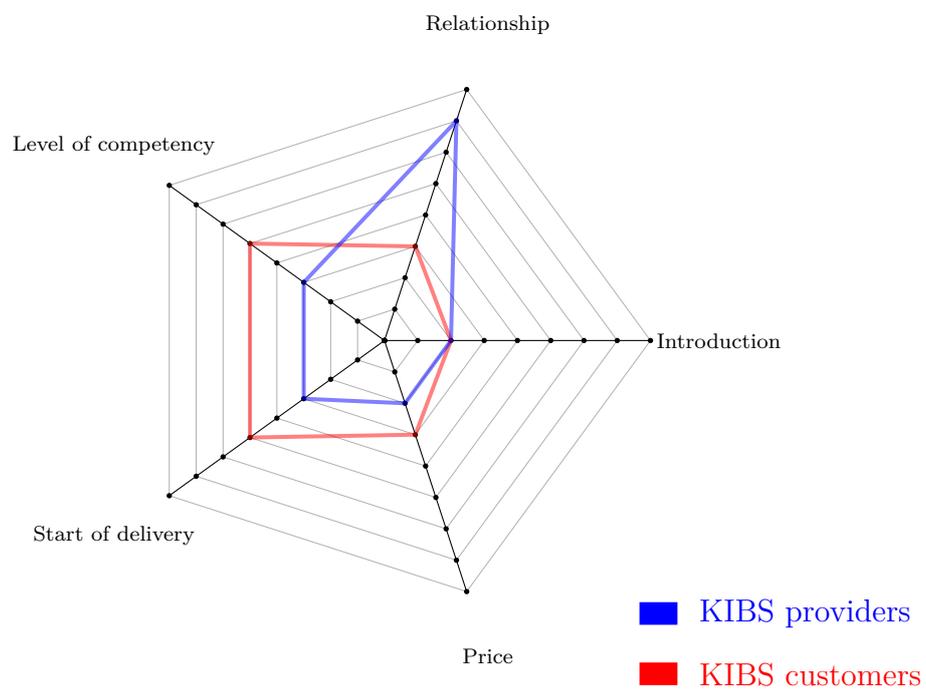


Figure 5.1: Radar chart of relative importance for the value dimensions, comparing customer and service provider.

6 DISCUSSION

In this chapter the results are discussed together with the theoretical framework. The chapter is divided into three sections: The KIBS value dimensions, Customer centered perspective: methodical reflection and KIBS as innovators. The chapter focus on explaining the results from the conjoint analysis, but also includes a discussion of the methodical approach and KIBS role as innovators.

6.1 The KIBS value dimensions

In value literature the value is determined by the customer's trade-off between sacrifice and benefit. Five value dimensions, in KIBS offerings, were considered and the aim was to determine their relative importance (see table 5.1, 5.3 and figure 6.1). As expected two of them, introduction and price, where of the sacrifice characteristic, typically characterized by a negative part-worth. This indicates that the customer want to keep these value dimensions low to maximize the total value. The value dimensions that have these sacrifice characteristics doesn't seem to be the most important as price was regarded the third most important value dimension and introduction the fifth, and least, important. According to Woodruff (1997) a simplification is that customer strives for a low sacrifice and high benefit. Although the result in this study indicates that the benefit is more important than the sacrifice. Ravald and Grönroos (1996), however, claim that focus on the sacrifice often can be more beneficial, but this is not supported by the results in this study.

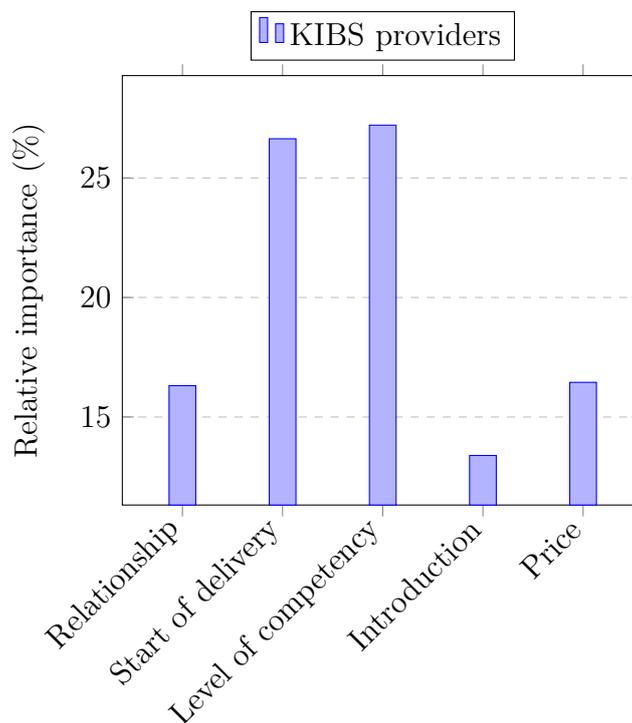


Figure 6.1: Bar chart of relative importance for the value dimensions.

Grönroos et al. (2008) explained that price could be seen as a quality criterion. This may give an indication on why price isn't regarded as the most important factor. A KIBS offering isn't automatically preferable because of a low price; rather a high price would indicate the need of a higher quality of the service. In this case a higher quality

meaning mainly competency and start of delivery. In the self-explicated model the price was regarded as the second most important value dimension, compared to third most important in the conjoint analysis. This might indicate that price is less important in trade-off situations where attributes are evaluated together, but more important when attributes are evaluated independently.

As supply and demand theory suggest the price is always set by the market in perfect competition (Marshall, 2009). The nature of the product or service will determinate the price elasticity of demand, where perfect competition suggest a perfectly elastic service or product. As described the price elasticity of demand is dependent on the demand function of the good. The pressure on the profitability margins in the T-KIBS business would indicate that the demand curve has shifted towards being more elastic, see figure 2.2. The law of supply suggests that an increase in earnings in an industry attracts new firms and the low barrier to in entry the KIBS business has made the supply more saturated than before.

The findings in this study suggest that the level of competence and start of delivery is more desirable than a low price. Indeed, if the level of competence and start of delivery is constant this study suggests that the price is more important than relationship and the introduction cost. This would likewise indicate that building unique competence might be significant for KIBS firms. The unique competence would shift the demand curve and create a service that is less price elastic. Service marketing should be focused on explaining the benefits of certain offerings (Grönroos et al., 2008). This study indicate that the marketing efforts, in the T-KIBS industry, should be focused on explaining the unique knowledge the firm possess, and what their solutions contributes in terms of savings and increased profits etcetera.

The self-explicated model indicates, as well as the conjoint analysis, that competency is the most important value dimension relative to those considered in this study. However, the relative importance seems to be even more evident in the self-explicated model.

The results likewise give support for flexibility being one of the key parts in KIBS offerings. Being a highly flexible KIBS provider may have similar effect as providing unique competence. In the modern economy speed and responsiveness are important parameters, especially for KIBS firms. As KIBS firms mainly are providers of knowledge (Miles et al., 1995) flexibility can sometimes be hard to achieve because stockpiling knowledge isn't as easy as stockpiling products. This stem from the fact that services are produced and consumed at the same time (Grönroos et al., 2008). Even though this study mainly examines the need of flexibility at the start of delivery one assumption may be that the flexibility is important throughout the service delivery, something which several authors already have suggested (Aarikka-Stenroos & Jaakkola, 2012; Bolton & Drew, 1991; Grönroos et al., 2008; Patterson et al., 1996).

Start of delivery was considered the third most important value dimension in the self-explicated model compared to the second most important in the conjoint analysis. The aim of the conjoint analysis is to put the respondents in a trade-off situation that is closer to reality with actual service offerings. These results may indicate that start of delivery date is more important in these situations, where responsiveness and flexibility often are key aspects for the customer.

One of the five considered value dimensions in this study was relationship, and was the fourth most valuable in the conjoint analysis. The relationship have been suggested to be one of the most important dimensions in modern service marketing (Grönroos et al., 2008). A long term relationship has been suggested to be beneficial for several different reasons (e.g., Stock, 2005) , although the customer sometimes neglect the fact that it comes

with decreased cost of the relationship (Grönroos et al., 2008). Building a strong service offering and keeping promises towards the customer will be keys for building these kinds of relationships. Although the customer, according to the results, doesn't value a long relationship above other important aspects such as flexibility and competency, it may still be an important aspect. This study doesn't measure the quality of the relationship, rather just the length of it, although Stock (2005) suggested that the length of the relationship is important when developing loyal customers.

Liljander and Strandvik (1995); Raval and Grönroos (1996) explained that the total value of an episode is determined both by the episode sacrifice and benefit but also from the relationship sacrifice and benefit. Even though this study does not support that relationship is one of the most important value dimensions it's still likely to add value for the customer. Grönroos et al. (2008) claims that the reduced cost from a long relationship sometimes is neglected both from supplier and buyer. This could be a reason for relationship is not regarded as more important in this study.

In our conjoint analysis design the relationship had three levels and the other value dimensions had two. As mentioned in the method chapter the number-of-level-effect is something to consider when constructing a conjoint analysis study. The number of-level-effect is minimized in this study by adopting best practice and not applying greater range than two levels. Although one should consider the possibility that relationship in this study may be overvalued because of the number-of-level-effect but is not likely to be extensive. In the self-explicated model the relationship was the least favorable, comparing to second least in conjoint analysis. This might indicate that the number-of-level effect have had some impact. Although, not by an extensive amount as relationship was among the least favorable value dimensions.

In the pre-study phase, when relationship was chosen as one of the value dimensions, there were some ambiguity whenever relationship was important or not. Two of the respondents seemed to highly value the relationship, and one of them was more critical against having a relationship to the firm. Grönroos et al. (2008) suggested that a firm can either be transaction or relationship oriented, where the latter would be a more beneficial partner when building a long-term relationship. The ambiguity in the interview study gives some support for this theory.

The introduction cost sought to capture KIBS firms possibility of decreasing some of the indirect cost related to the KIBS delivery. In the interviews it was focused on firm specific knowledge. A shorter introduction will reduce cost and will attract customer that are in need of flexibility. Bolton and Drew (1991) states that the flexibility is problematic because of the complexity in understanding of maximized quality of the service and the varying situations.

The introduction cost was the value dimension which was regarded least favorable in the conjoint analysis study. A lower introduction cost would mean a lower sacrifice for the customer, and therefore a higher value. It is sometimes, especially in a long-term relationship, deemed to be easier to provide the possibility to maintain a higher value by reducing sacrifice rather than improving the benefit (Raval & Grönroos, 1996). However, the findings in this study does not support that the introduction is among the most important aspect for customer value in KIBS offerings.

As explained before maintaining flexibility in the KIBS industry can sometimes be problematic. The interviews indicated that KIBS customers often calculates with an introduction cost and this may be a reason why this value dimension has been somewhat overlooked. The conjoint analysis end-point design only gives the respondent two opposites in this case if an introduction is needed or not. The yes-option might have been considered

more realistic as the firms often calculate with an introduction cost. However the results indicated that the lack of introduction, as expected, is more preferable, although the relative importance compared to the other dimensions are low. This study indicates that the KIBS customer, indeed, value flexibility, even though the start of delivery date seem to be more important than being flexible in terms of a short introduction period.

In the self-explicated model the introduction cost was regarded as the fourth most important value dimensions, comparing to being the fifth most important in the conjoint analysis. Both of the methods indicates that introduction cost is one of the least important value dimensions considered in this study.

In figure 6.2 the findings in the study are combined with the figure 2.6 to visualize the impact of each dimension. Green colour indicates a value dimension of benefit characteristic, which a customer wants to maximize. Red colour indicates a value dimension of sacrifice characteristic, which a customer wants to minimize. The size of the value dimension bar indicates the relative importance of the value dimensions according to the results in this study.

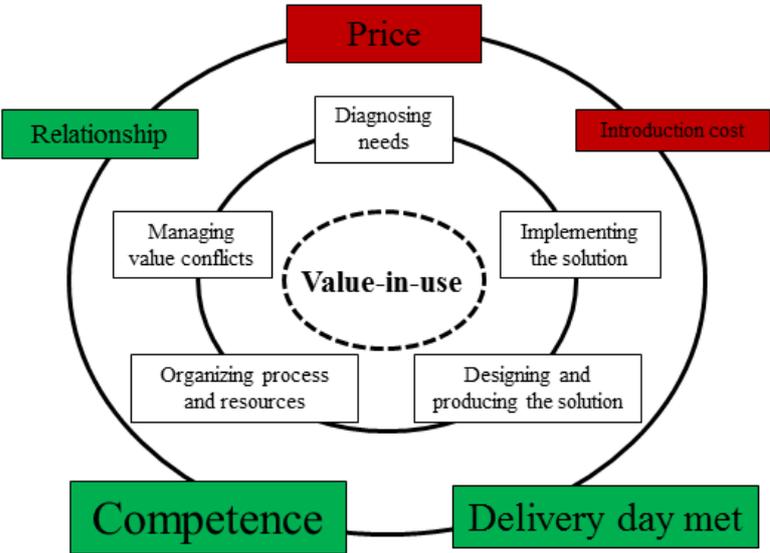


Figure 6.2: KIBS value dimensions findings and value-in-use. Value-in-use source: (Aarikka-Stenroos & Jaakkola, 2012)

6.2 Customer centered perspective: methodical reflection

In this study conjoint analysis was used, together with an interview pre-study, to elicit the relative importance among significant value dimensions in KIBS offerings. The approach was customer centered which imply that capturing their perspective was the main focus. Indeed, the customer value is by definition subjective (e.g., Woodruff, 1997) but when keeping the population small this study suggests that it is generalizable. To further enhance the robustness of the costumer centered approach the conjoint analysis were distributed to KIBS group managers that continuously provide KIBS offerings and have a close contact with customers.

As seen in table 5.3, table 5.7, table 5.8, figure 5.1 and 6.3 the view of customer value differs from the people in charge of knowing what the customer’s want and the

customer’s themselves. Of course one can argue that customer’s doesn’t know what they want themselves or that they don’t answer in a correct way. But despite those arguments what is captured is still the view of the customer. As the concept of value in use (Grönroos et al., 2008) suggests the value is always created by the customer, and not by the service provider.

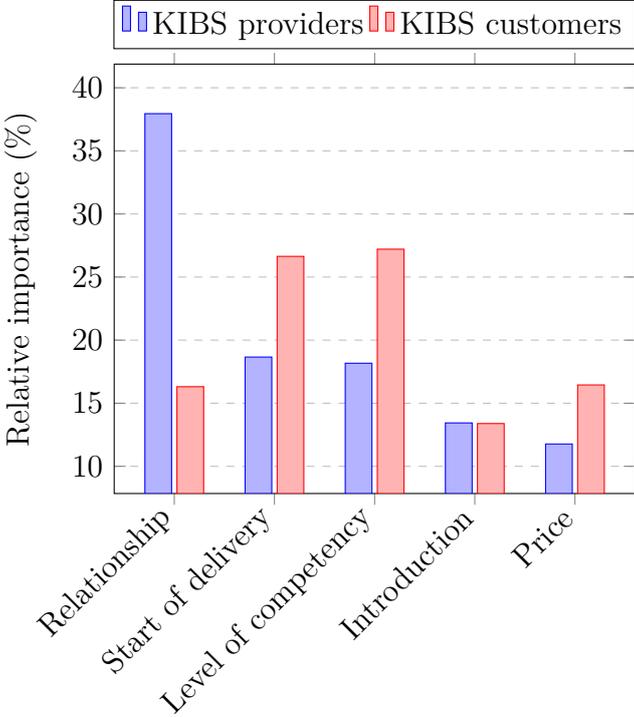


Figure 6.3: Bar chart of relative importance for the value dimensions, comparing customer and service provider.

As the results indicated the view of what the customer value differs between people who interact with customers and the customer themselves. This implies that when examining customer value talking to only sale representative wouldn’t have been a preferable method. If this study instead would have been supplier centered the results would have been highly dependent on the supplier firm’s knowledge about customer value. This would seem that a less reliable method than asking the customers directly.

Leigh et al. (1984) expressed concerns if conjoint analysis really had higher internal validity than simpler self-explicated models. The results in this study suggest that it indeed does. Both the internal validity and cross-validity of the multiplying regression model deemed to be at significant levels. The results differed between self-explicated model and the conjoint analysis. The most obvious was that price seemed to be over-valuated in the self-explicated model, both for the KIBS provider and customer sample. The conjoint analysis provides a method that is closer to reality were customer trade-off actual service offerings rather than just state their preferences. Furthermore, Leigh et al. (1984) claimed that conjoint analysis is superior when the attributes of the service, or product, are not obvious. The non-homogenous KIBS industry and the results from this study do indicate a support for this.

The cross-validity and the internal-validity test conducted in the study both indicates that the customer centered conjoint analysis approach is suitable when examining KIBS offerings.

6.3 KIBS as innovators

Several researchers (e.g., Sarkar et al., 2016; Muller & Doloreux, 2009; Strambach, 1997) have claimed that KIBS are important drivers of innovation. In our interview study we could not find support for this claim. The interviewees didn't consider innovation power as an important value dimensions, although they indicated that KIBS could provide new ideas because of their broad knowledge base.

This necessarily doesn't conclude that KIBS doesn't innovate, rather it suggest that it isn't the main reason why they are hired. As previously explained researcher has found a correlation between hiring KIBS firms and innovation (e.g., Muller & Doloreux, 2009; Sarkar et al., 2016; Strambach, 1997), but this isn't reflected in the way customers act according to this study. This would indicate that marketing strategies towards KIBS innovation power or alternative pricing models were innovation power is captured could shift the customers opinions about innovation.

As discussed this study does not give support for innovation being an important part for customer's value in KIBS offerings. As expressed by several authors (e.g., Muller & Doloreux, 2009) there is some ambiguity in the KIBS expression. However, engineering and IT consultancy firms, as is the main group in this study sample, are explicit named among KIBS sectors (Miles et al., 1995). However, our findings in this study suggest that these firms typically are used as a way of balance uneven workload. This could be one of the reasons why the engineering firm innovation power was neglected in the interview study.

Undisputable, the engineering firms have many denominators comparing to other typical KIBS firms e.g. management consultancy firms. Their high dependency of high-skilled knowledge being the most obvious, but likewise the role as complex advisor is sometimes adopted according to our interview study. However, when the knowledge is used primarily for short-term staffing issues the complex nature of the delivery could be questioned. These differences between firms that typically could be considered KIBS could be troublesome when researching the industry. Since KIBS was coined by (Miles et al., 1995) the industry and technology has evolved. Industries that have been knowledge intensive then might not be it anymore.

The empirical finding in this study is exclusively from engineering and IT consultancies. These are considered as the core of T-KIBS and apart of the KIBS industry. These industries might, perhaps, be the ones that have seen the biggest change during the last 20 years. Engineering and IT as disciplines have become even more important, but the common knowledge among the companies in the disciplines is likewise increasing. The results from the conjoint analysis and in depth discussion about value hereby follow.

7 CONCLUSIONS

In this chapter the conclusion of the study is presented. The chapter firstly answers the main research question and later explores the methodical conclusions and concepts used in the study.

The research question of this study was to determine the relative importance among significant value dimensions. The study sought to add to the knowledge in two areas where ambiguity existed – customer value and KIBS. The conjoint analysis approach provided the study with quantitative data which added to the empirical research of KIBS customer value.

Among those value dimensions considered in this study competency and start of delivery was the top two value dimensions for customers. These two were followed by price, relationship and introduction in descending order. This research study does suggest that a high benefit for the KIBS customer is more important than a low sacrifice. This implicate that KIBS firms should focus their effort of building unique competence and being flexible to create less price elastic service offerings.

The conjoint analysis approach used in this study gave significant results. Conjoint analysis has been widely used in marketing, but not in a KIBS context. The results from this shows that conjoint analysis is a suitable method to be considered when examining customer value and preferences in the KIBS sector.

The study was conducted both with microeconomic principles in mind and by service marketing. The service marketing research highly emphasizes on a customer centered approach and it was likewise the adopted methodology of this study. The comparison between the conjoint analysis results for KIBS customer and KIBS provider give insight to these methodologies. The results, indeed, show us that asking customers and providers the same question does not necessarily provide the same result.

Given the value-in-use concept, where value always is created in the customer sphere, the customer opinion would be of higher interest. This gives an valuable insight of the importance of taking the customer's perspective when the research aim is to evaluate their actions. Other methodologies might be considered to get the supplier view. Although, in terms of customer value the customer themselves always holds the truth – this is an intuitional insight that might not always be considered a truth.

The results give some insight to KIBS industry. Although, some profitability issues have occurred the last ten years the price is not the most important value dimension. This would indicate that a low price, alone, is not per definition a good thing. Despite this, several firms in the industry compete merely by maintaining a competitive price, and thus neglecting other potential ways of getting a competitive edge.

One could argue that the KIBS firms pricing models focus on cost and therefore the natural way is competing by reducing the cost. As suggested by authors competing by price is not a preferable way of keeping a long-term advantage against the competitors. Instead, by understanding the customer, the firms can capitalize when fulfilling the value process for the customer. This thesis does suggest that firms which have higher competency than their customer gives higher potential for value creation.

Meanwhile, firms that can be flexible in terms of delivery dates likewise give potential for value creation. The occupancy rate is by many KIBS firms regarded as an important key performance indicator. However, a high occupancy rate does decrease the ability for KIBS firms to be flexible and their ability to focus on internal innovation.

As explored in this thesis the level of competency is always in the eye of the beholder, meaning the customer. In a business where occupancy rate and hourly rate are considered the key to success companies could be tempted to take projects from non-profitable customers. As discussed not all customers are relationship oriented, but merely interested in the transaction between the firms. Finding relationship oriented customers that the KIBS firms can provide with expert knowledge can be the key for future success. The important question should not be: “how do we create value for our customers?”, rather the question should be: “how do we choose the customers that we can create potential value for”.

8 RECOMMENDATIONS AND FUTURE WORK

In this chapter future recommendation for research are given.

As the empirical findings suggest competency and knowledge are among the most important value dimensions for KIBS customers. Researching the KIBS capability to development and keep unique competency should therefore be of research interest.

This study likewise suggests that conjoint analysis is a sufficient research method for researching customer value and preferences in the KIBS sector. A more comprehensive study using adaptive conjoint analysis with more attributes would therefore be of interest. This could give further robustness of the findings of this study, but could also find new important value dimensions and their relative importance. A similar research study with bigger sample should also be of interest. With a bigger sample one could determine if the findings are generalize to a bigger population.

The findings likewise indicated that there were a mismatch between KIBS provider and KIBS customer in terms of value. Researcher studies solely focused on this question could be of importance and what that mismatch implicate.

The development of the KIBS concept is progressing but there is still some ambiguity in the expressions. Several authors (e.g., Muller & Doloreux, 2009) made attempts to sum up the works to further enhance the understanding of the concept. Some empirical findings in this study suggest that the entire KIBS sector isn't, perhaps, as complex and knowledge intense as suggested. An idea would be to fragmentatise the research between T-KIBS and P-KIBS as there are some clear distinctions between the two. This fragmentation might be a key to concretize the concept and further enhance the research.

One of the inspirations of this study was value pricing. This study focused solely on customer value and not at pricing models. Although, this research indicates that KIBS firms doesn't use appropriate pricing models to maximize value for customers and themselves. Research studies that focus on innovative pricing models for KIBS firms may have big managerial implications and should be of research interest. Modular, and bundling, is pricing strategy where you combine different offerings into a new, bundled product. The bundled service offering is sought to have a higher willingness than the services divided. This kind of price discrimination strategies could be an alternative when looking for new options for these firms. Combining a modular approach and value based pricing could be an alternative in the KIBS sector.

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A THE CONJOINT ANALYSIS SURVEY

Conjoint analys survey template

Enkätundersökning - våren 2017 (del 1)			Er roll: _____							
[Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp]	Profilnummer 1		Profilnummer 2		Profilnummer 3		Profilnummer 4		Profilnummer 5	
	Pris?	Lågt pris	Pris?	Lågt pris	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Högt pris (50 % mer än lågt pris)
	Introduktion behövs?	Ja	Introduktion behövs?	Nej	Introduktion behövs?	Ja	Introduktion behövs?	Nej	Introduktion behövs?	Nej
	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mer än er
	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Ja
	Relation till konsultfirmen?	2 år	Relation till konsultfirmen?	Ingen	Relation till konsultfirmen?	Ingen	Relation till konsultfirmen?	10 år	Relation till konsultfirmen?	Ingen
Sannolikheten från 1-100?										
[Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp]	Profilnummer 6		Profilnummer 7		Profilnummer 8		Profilnummer 9		Profilnummer 10	
	Pris?	Lågt pris	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Lågt pris	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Högt pris (50 % mer än lågt pris)
	Introduktion behövs?	Ja	Introduktion behövs?	Nej	Introduktion behövs?	Nej	Introduktion behövs?	Nej	Introduktion behövs?	Ja
	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mindre än er eller lika mycket
	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Ja
	Relation till konsultfirmen?	10 år	Relation till konsultfirmen?	2 år	Relation till konsultfirmen?	Ingen	Relation till konsultfirmen?	10 år	Relation till konsultfirmen?	10 år
Sannolikheten från 1-100?										
Enkätundersökning - våren 2017 (del 2)			Antal poäng kvar:							
[Dela ut hundra poäng totalt fördelat på respektive alternativ utifrån hur viktiga du tycker vardera alternativ är, flest poäng är viktigast]	Pris?		100							
	Introduktion behövs?									
	Kompetensnivån?									
	Leveransstart enligt förväntan?									
	Relation till konsultfirmen?									

Conjoint analys survey completed

Enkätundersökning - våren 2017 (del 1)			Er roll: Ärskningschef		
(Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp)	Profilnummer 1		Profilnummer 2		
	Pris?	Lågt pris	Pris?	Lågt pris	
	Introduktion behövs?	Ja	Introduktion behövs?	Nej	
	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mer än er	
	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Ja	
Relation till konsultfirman?	2 år	Relation till konsultfirman?	Ingen	Sannolikheten från 1-100?	10
(Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp)	Profilnummer 3		Profilnummer 4		
	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Högt pris (50 % mer än lågt pris)	
	Introduktion behövs?	Ja	Introduktion behövs?	Nej	
	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mer än er	
	Leveransstart enligt förväntan?	Nej	Leveransstart enligt förväntan?	Nej	
Relation till konsultfirman?	Ingen	Relation till konsultfirman?	10 år	Sannolikheten från 1-100?	10
(Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp)	Profilnummer 5		Profilnummer 6		
	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Lågt pris	
	Introduktion behövs?	Nej	Introduktion behövs?	Ja	
	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mindre än er eller lika mycket	
	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Ja	
Relation till konsultfirman?	Ingen	Relation till konsultfirman?	10 år	Sannolikheten från 1-100?	10
(Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp)	Profilnummer 7		Profilnummer 8		
	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Lågt pris	
	Introduktion behövs?	Nej	Introduktion behövs?	Nej	
	Kompetensnivån?	Kan mindre än er eller lika mycket	Kompetensnivån?	Kan mindre än er eller lika mycket	
	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Nej	
Relation till konsultfirman?	2 år	Relation till konsultfirman?	Ingen	Sannolikheten från 1-100?	10
(Svara sannolikheten till köp av varje profil från 1-100, där 100 är stor sannolikheten till ett köp)	Profilnummer 9		Profilnummer 10		
	Pris?	Högt pris (50 % mer än lågt pris)	Pris?	Högt pris (50 % mer än lågt pris)	
	Introduktion behövs?	Nej	Introduktion behövs?	Ja	
	Kompetensnivån?	Kan mer än er	Kompetensnivån?	Kan mindre än er eller lika mycket	
	Leveransstart enligt förväntan?	Ja	Leveransstart enligt förväntan?	Ja	
Relation till konsultfirman?	10 år	Relation till konsultfirman?	10 år	Sannolikheten från 1-100?	10
Enkätundersökning - våren 2017 (del 2)			Antal poäng kvar:		
(Dela ut hundra poäng totalt fördelat på respektive alternativ utifrån hur viktiga du tycker vardera alternativ är, flest poäng är viktigast)	Pris?	30	0		
	Introduktion behövs?	10			
	Kompetensnivån?	35			
	Leveransstart enligt förväntan?	25			
	Relation till konsultfirman?	10			

B INTERVIEW GUIDE

Intervjuguide (Interview guide)

Denna intervju ämnar till att identifiera vilka parametrar som är viktiga vid försäljning av konsulttjänster. Vi vill därför få kundens syn på händelseförloppet vid distribution och mottagande av konsulttjänster. Denna intervjuguide har som uppsåt att vara av värde för både konsultleverantörer såsom för kunderna. Alla intervjuer kommer att spelas in, där tillåtelse tydligt kommer att undersökas innan samtalet startar. Vi tillämnar att enbart nämna företagets storlek samt personens generella roll på företaget. Henrik och Mikael kommer ta del av intervjuerna där det först transiberar samtalet för att sedan strukturerat välja ut det mest väsentliga från samtalet genom memo-writing. De olika intervjupersonerna kommer få den sammanställda intervjutexten skickat till sig för godkännande innan användning av materialet i forskningssyfte. Lämpligt material kommer användas vid utformning av examensarbetet.

Kund

1. Bakgrund information

- Titel på intervjupersonen och dennes roll i organisationen.
- Organisations storlek.

2. Organisation och segment som kunden arbetar inom samt utmaningar med konsult inköp.

- Får jag be dig berätta om den branschen som ni arbetar inom?
- Hur ofta brukar ni köpa konsulttjänster?
- Vilka olika utmaningar är involverade när ni köper konsulttjänster?
- Kan du berätta hur det går det till när ni köper in konsulttjänster?
- Generellt, vilka problem och utmaning förväntar ni få lösta vid inköpanandet av konsulttjänster?
- Brukar ni jämföra olika konsultfirmor? I så fall hur?
- Hur skulle du beskriva idealkonsulten utifrån tre personliga egenskaper?
- Rangordna det viktigaste parametrarna kopplat till leveranser av konsulttjänster.

3. Kundens kriterier vid köp av konsulttjänster.

- Vad motiverar ett högre pris?
- Har det skett någon prisutveckling under den senaste tio åren av konsulttjänster? Positivt/negativt?
- Hur har denna (upp-/nergången) påverkat era tankar kring inköp av konsulttjänster?
- Får jag be dig berätta vilka typer av konsulttjänster som ni köper in?
- Hur skiljer sig era kriterier mellan konsulter med bemanningsuppdrag och konsulter som levererar en helhetslösning?

4. Vikten av kommunikation, innovation, relationer och risk.

- Hur föredrar ni att kommunikationen mellan er och konsulter ska ske? Och mellan er och konsultfirman?
- Hur mycket egna initiativ och förslag bör konsulter initiera? Hur tänker ni kring kopplingen mellan konsulter och innovationer?

- Vad tycker ni sammanfatta en god relation? Hur högt värderas en god relation? Hur jobbar ni för att bygga en god relation?
- Hur kvalitetssäkrar ni konsultfirmans kompetens?
- Berätta lite om den risk ni ser samband med inköpande av konsulttjänster? Vilka risker har ni identifierat?

4. Kundens investering i problemlösningen.

- Hur deltar ni som kund i problemlösningsprocessen?
- Vilka typer av resurser behöver ni som kund tillhandahålla med för att underlätta för en lyckad tjänsteleverans?

5. Berätta om en konsulttjänst som ni har aktuell erfarenhet av.

- Får jag be dig att beskriva tjänsten?
- Vilken typ av problem löste tjänsten? Vilket behov hade du som kund?
- Berätta mer om det långsiktiga värdet som genererades av lösningen? Levde lösningen upp till era förväntningar?
- Fanns det några delar av lösningen som var överflödiga? I så fall vilka?

6. Avslut

- Är det något mer du vill tillägga som vi inte behandlats under dagens samtal?
- Skulle du kunna tänka dig att vara med på en kort enkätundersökning någon gång under våren? Vet du om det finns några fler personer som skulle kunna svara på en sådan enkät? Vet du om det finns några fler företaget som skulle kunna svara på en sådan enkät?



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