

CUSTOMER PERCEIVED VALUE IN CROSS- CULTURAL B2B MARKETS - CASE BEAMEX OY AB

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ABSTRACT

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Abstract <p>Knowing how customer perceived value is constructed helps companies to understand better their customers' needs and what customers consider as benefits or sacrifices in supplier-customer relationships. Moreover, high customer perceived value leads to high customer satisfaction, which in turn leads to re-purchases, recommendation and diminishes the desire to change the supplier. Thus, gaining information on customer perceived value can offer competitive advantage to companies.</p> <p>However, as more and more companies do business outside their home country, it raises a question whether cultural differences affect the way customers perceive value. Many previous researches have confirmed that culture has an impact on our beliefs and values. There is a lack of knowledge whether companies should adjust their value proposition according to different countries to ensure that value propositions speak to all customers.</p> <p>Consequently, in this research the aim was to find out the key value drivers of customer perceived value in B2B markets by using a research model based on study by Blocker (2011). Moreover, the research's object was to find out whether cultural differences affect customer's perception of value in B2B markets. The research was conducted as a quantitative survey study on Finnish electronics industry company Beamex Oy Ab's customers.</p> <p>The results revealed that even though respondents felt that several value dimensions were beneficial for them, only offer quality, supplier's know-how and price/value for money were significant value drivers for them. Moreover, results confirmed the positive relationship between customer perceived value and customer satisfaction. In addition, the results showed that cultural differences do not affect the way people perceive value in B2B relationships. Thus, companies do not have to adjust their value proposition according to different countries. However, the results suggest that person's organisational role has an effect on customer perceive value. This finding is in line with previous literature that value is subjectively perceived construct and managers should keep that in mind when communicating value propositions towards potential customers.</p>	
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<p>Ymmärrys asiakkaan kokeman arvon muodostumisesta auttaa yrityksiä ymmärtämään paremmin heidän asiakkaidensa tarpeita sekä käsittämään, mitkä asiat asiakkaat kokevat hyötyinä tai uhrauksina asiakassuhteissa. Lisäksi asiakkaan kokeman arvon on todistettu johtavan asiakastyytyväisyyteen ja sitä kautta uudelleenostoihin, suositteluun sekä vähenevään tarpeeseen vaihtaa toimittajaa. Näin ollen arvon muodostumisen syvempi ymmärtäminen tuo yrityksille merkittävää kilpailuetua.</p> <p>Koska yritykset yhä suuremmissa määrin tekevät liiketoimintaa myös kotimaansa ulkopuolella, herättää tämä kysymyksen siitä, vaikuttavatko kulttuurilliset erot asiakkaan kokemaan arvoon. Aikaisemmat tutkimukset ovat todistaneet, että kulttuuri vaikuttaa uskomuksiimme ja arvoihimme. Yrityksillä ei kuitenkaan ole tietoa siitä, pitäisikö heidän sovittaa yrityksen arvolupaukset eri maiden mukaan, jotta arvolupaukset puhuttelisivat kaikkia asiakkaita.</p> <p>Näin ollen tässä tutkimuksessa haluttiin selvittää, mitkä asiat luovat asiakkaan kokemaa arvoa B2B-markkinoilla, käyttäen apuna tutkimusmallia, joka perustuu Blockerin (2011) tutkimukseen. Lisäksi tutkimuksessa haluttiin selvittää, vaikuttavatko kulttuurilliset tekijät asiakkaan kokemaan arvoon B2B-markkinoilla. Tutkimus suoritettiin kvantitatiivisena kyselytutkimuksena suomalaisen B2B elektroniikkateollisuuden yrityksen Beamex Oy Ab:n asiakkaille.</p> <p>Tutkimustulokset paljastivat, että vaikka vastaajat kokivat useamman arvodimension olevan heille hyödyllisiä, vain tarjonnan laatu, palveluntoimittajan tietotaito ja hinta/rahan arvo tuottivat asiakkaille merkittävää arvoa. Lisäksi tulokset vahvistavat asiakkaan kokeman arvon ja asiakastyytyväisyyden välisen positiivisen suhteen. Tuloksista selvisi myös, että kulttuurilliset erot eivät vaikuta asiakkaan kokemaan arvoon. Yritysten ei siis tarvitse sovittaa arvolupauksiaan eri maiden välillä. Tutkimustulokset kuitenkin viittaavat siihen, että henkilön työroolilla on merkitystä asiakkaan kokemaan arvoon. Tämä tulos on yhdenmukainen aikaisemman teoriakirjallisuuden kanssa, minkä mukaan arvo on subjektiivisesti koettu käsite. Yritysten pitäisikin pitää tämä mielessä viestiessään arvolupauksiaan potentiaalisille asiakkaille.</p>	
Asiasanat Asiakkaan kokema arvo, asiakastyytyväisyys, kulttuurienvälisyys, B2B-markkinat	
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1 INTRODUCTION

Providing value for its customers has always been one of the main goals for companies. As being faced with always increasing competition, companies can achieve and sustain valuable competitive edge by distinguishing themselves and their market offerings from competition with unique value propositions (Arslanagic-Kalajdzic & Zabkar 2015; Eggert, Ulaga, Frow & Payne 2018).

One of the definitions of value is that it is the supplier's offer's worth, when taking into consideration all the benefits and sacrifices (Anderson, Kumar, & Narus 2007). Therefore, it is central for companies to apprehend from what their customers' perceived value consist of, i.e. the benefits and sacrifices of supplier-customer relationship. The knowledge of what drives value for company's customers, can assist the company to better recognise customers' needs and what kind of value propositions speak to the customers (Arslanagic-Kalajdzic & Zabkar 2015; Blocker 2011; Eggert et al. 2018; Lapierre 2000).

Moreover, several studies have managed to show that high customer value often leads to customer satisfaction (Arslanagic-Kalajdzic & Zabkar 2017; Lewin, Biemans & Ulaga 2010; Ulaga & Eggert 2002; Wang, Po Lo, Chi, & Yang 2004). Customer satisfaction is thought to be one of the key drivers of long supplier-customer relationships by being significant determinant of customer loyalty, repeat purchases price elasticity and positive word-of-mouth in B2B-markets. (Arslanagic-Kalajdzic & Zabkar 2017; Austen, Herbst & Bertels 2012; Voldnes, Grønhaug & Nilssen 2012; Wang et al. 2004.) Consequently, knowing the perceived value of company's customers can help companies to offer value for their customers and increase their satisfaction so as to build beneficial long-standing supplier-customer relationships.

While several researches have studied customer perceived value scope and domain, there is still a lack of agreement amongst marketing scholars on the perceived value's conceptualisation (Arslanagic-Kalajdzic & Zabkar 2017; Eggert et al. 2018; Wang et al. 2004). For instance, although functional value unarguably plays significant role in customer perceived value, several studies have shown that value consequences, such as loyalty and satisfaction, could not hang on only

on functional value (Arslanagic-Kalajdzic & Zabkar 2017; Lapierre 2000; Ulaga & Eggert 2006b). This might call for value proposition's re-examination, for instance for industrial industry companies, who often traditionally emphasise the functional value of their offering.

Moreover, customer perceived value research has mainly focused on domestic markets, while forgetting cross-cultural measurement (Blocker 2011). Cultural background is identified to impact people's beliefs, norms, values and behaviours (Leung, Bhagat, Buchan, Erez, & Gibson, 2005; Voldnes et al. 2012), hence it should be in the company's best interest to find out whether cultural factors influence how people perceive value in B2B business relationships.

As a result of lack of knowledge in these particular themes on customer perceived value, we can see a justification to fill this research gap in customer perceived value research area.

1.1 Research objective and research problem

The research object of this master's thesis research is to increase the knowledge of how customer perceived value is constructed in cross-cultural context. This master's thesis' topic is a commission from a Finnish B2B electronics industry company Beamex Oy Ab. Beamex products, support and services are available in over 80 countries through Beamex headquarters, subsidiaries, branch offices and network of independent distributors. In other words, the company operates in cross-cultural business-to-business markets every day.

The past few years the company has been in a need of better measurement of their customers' customer satisfaction. However, according to Woodruff (1997) in-dept knowledge about customer perceived value and related problems is needed to back up customer satisfaction measurement. As satisfaction is a rather time-based state mirroring how the service or product fulfils its purpose (Lewin et al. 2010), using merely satisfaction measurements may not provide enough information to guide managers what actions should they take. Thus, customer data should contain information on how satisfied customers are with supplier's current market offering, but also assessment of how value is perceived by customers in order to have information for marketing decision making.

Therefore, by finding out what value drivers are the key drivers of customer perceived value in company's field of business can offer important information about company's customers and bring competitive advantage to company.

Consequently, this research's two research question are formulated as follows:

1. *What are the key value drivers of customer perceived value in B2B markets?*
2. *Do cultural differences affect customer's perception of value in B2B markets?*

The research will be conducted as a descriptive and partly causal quantitative survey study. Descriptive studies focus on describing the nature of studied segment by shedding a light on present problems or matters via data collection. It helps to explain the setting better than was achievable without utilising this method. (Birks & Wills 2013, 90.) Causal research test whether one event causes another event (Hair, Wolfinbarger, Money, Samouel & Page 2015, 161). Moreover, questionnaire surveys are useful in describing the characteristics of a large population, because through a survey we are able to contact more easily a larger number of suitable respondents (Hair et al. 2015, 210). The collection of research data will happen by sending the questionnaire survey via email to Beamex company's customers, who usually receive English marketing communications. These countries include countries, such as Unites States, India, Finland and South Africa

This master's thesis is structured as follows: The following chapter will provide a short theoretical background on customer perceived value research in business markets context. After that testable framework will be presented and then the research gap in current customer perceived value research area will be addressed. Finally, recommendations for measuring customer perceived value in cross-cultural context are offered and implications for global market intelligence will be provided.

2 THEORETICAL FRAMEWORK

In the following chapter we are going to go through some theories and concepts that are important for understanding the studied phenomenon. The chapter will move from customer perceived value research to perceived value drivers and customer perceived value, then to customer satisfaction as a descendant of customer perceived value. Finally, we will discuss hypotheses of this research.

2.1 Customer perceived value research in B2B context

The creation and communication of customer value is one of the centre goals in B2B marketing (Arslanagic-Kalajdzic & Zabkar 2015; Eggert et al. 2018). But how value is defined? Quite often the definition of value is briefly described as the supplier's offer's worth, when considering all offer's sacrifices and benefits (Anderson et al. 2007). However, this definition does not fully describe the complexity of customer perceived value.

In addition to assessment of sacrifices and benefits, value is subjectively perceived construct (Eggert & Ulaga 2002, Sweeney & Soutar 2001). Different customer segments weight different features in same product, thus within the same product they perceive different values. Therefore, people that are taking part in the purchasing process can have dissimilar perceptions of a supplier's value offering. (Eggert & Ulaga 2002; Perkins 1993.)

Furthermore, value is relative to competition. Supplier can create sustainable competitive edge by trying to offer a better trade-off between sacrifices and benefits than competitors (Eggert & Ulaga 2002.)

There can be identified three consecutive phases of how scholarly definitions of customer value have evolved in the business-to-business marketing domain (Eggert et al. 2018). According to Eggert et al. (2018) the first phase of academic research concentrated on applying the research from consumer markets to B2B context by studying how the value characteristics acknowledged at that time fitted into that context. In this time academics also compared relationships, differences and similarities of value research with other significant concepts in B2B marketing (Eggert et al. 2018; Ulaga & Eggert 2006b).

It is important to realise, that the importance of creating value was not as essential in the past as it is today. In the past, companies could still gain high profits since distribution channels were controlled, markets were regulated, and production resources were limited. (Lindgreen & Wynstra 2005.)

The second phase developed the definition of construct from goods-centric domain, meaning the that the perception of value implanted in product of supplier, broadened to relationship value (Eggert et al. 2018). With relationship value, Eggert et al. (2018) mean the value perceived in the relational connections between suppliers and their customers that help transactions of

services and goods in B2B context. During this time, scholars were also interested about the value perceptions' dynamic nature over time. Furthermore, they continued comparing relationship value to other relationship-focused concepts (Ulaga & Eggert 2006a) and took interest in customer perceived value in different countries and markets. (Blocker 2011; Eggert et al. 2018.)

In the third phase, scholars began to acknowledge that often times suppliers were forced to collaborate with their customers to achieve shared value creation (Eggert et al. 2018; Grönroos 2008). Nowadays, the most recent concept of the nature of value is that value is not exchanged in market transactions or implanted in products, but rather co-created via resources, inter-linked activities and actors. The co-creation of value emphasises value-in-use thinking, where value is not only dependable of supplier's capabilities and resources, but also on customer's and other involved parties' capabilities and resources. (Eggert et al. 2018.) This perspective has created for instance the concept of service-dominant logic of marketing (Eggert et al. 2018; Vargo & Lusch 2004).

While the current approach to value research emphasises co-creation of value, value created in co-operation with the supplier and buyer is often times difficult to measure with frameworks that marketing research currently provides. Therefore, this study focuses more on the value relationship aspect of value research area. Consequently, in this study, customer value is defined as follows: "customer perceived value in business markets is the perception of the functional, emotional and social benefits and sacrifices related to the supplier's offering, usually formed over a period of time, perceived by key decision-makers in the customer's organisation, taking into consideration their business relationship and available alternative supplier offerings in a specific use situation" (Eggert & Ulaga 2002). This definition takes in consideration the fact that customer value is formed during period of time, it's affected by the nature of supplier-customer relationship and it is a complex mix of different benefits, sacrifices and other influencing factors the customer perceives.

In spite of several researches have studied the perceived value scope and domain, there is a lack of agreement amongst scholars on the conceptualisation of customer perceived value which leads to mixed and often inconsistent research findings (Arslanagic-Kalajdzic & Zabkar 2017). Conceptualisations of customer perceived value in B2B markets have evolved enormously over the past decades (Eggert et al. 2018), which has understandably had an effect on the lack of consensus among scholars.

As previously established, earlier definitions of perceived value were based on the exchange between what consumers get and what they give in exchange. In business-to-business context this was conceptualised as a perceived judgement of price paid and technical product quality (Eggert et al. 2018).

During the 1990's and early 2000s scholars began to separate multiple value dimensions (Eggert et al. 2018). They recognised that in exchange for a price paid of supplier's product, B2B customers get multiple benefits and interpret those benefits into perceived value in monetary units. Moreover, they take into consideration competing supplier's offerings when making value

judgements. During this time, researchers also discovered hierarchical relations between customer-desired consequences, product attributes and final goals pursued by B2B customers. (Eggert et al. 2018; Woodruff 1997.)

Furthermore, at that time, there was inconsistency on how price should be incorporated in the value equation. Some scholars categorised price in the sacrifice dimension in their value definitions as perceived exchange between sacrifices and benefits. Other researchers separated value and price as independent components. (Eggert et al. 2018.) For instance, according to Anderson and Wynstra (2010), in B2B markets, price is what customer company pays to supplier company for its market offering. Therefore, according to them, price is not part of value.

However, even these days, many customer perceived value frameworks consider price as a sacrifice for buyer (Ulaga & Eggert 2006b; Blocker 2011; Lapierre 2000; Wang et al. 2004). Scholars agree that there are many other kinds of sacrifices in addition to price, but often direct costs have at least some sort of influence on customer perceived value (Blocker 2011; Wang et al. 2004).

Next important step was that scholars began to acknowledge that business relationships had remarkable potential for creating value on their own (Eggert et al. 2018). Eggert et al. (2018) argue that advantaged admission to a supplier's distinctive expertise and unique resources can secure sustainable competitive edge for customer company in their own market. Thus, value is not derived only from supplier's product offering, but also from social ties, offered service support and supplier's know-how expertise (Blocker 2011). Therefore, customer perceived value can be constructed as summary judgement of the supplier-customer relationship.

In the mid-2000's perspective shifted to acknowledgement that both supplier and business customers are involved in value creation (Eggert et al. 2018). The main idea in this co-creation of value concept is that value construct involves not only supplier's capabilities and resources, but also resources and capabilities of customer and other parties, that are participating in value creation.

As discussed before, current marketing research does not currently provide sufficient framework for measuring such complex consumer perceived value construct as co-creation of value concept believes there is. Therefore, this study will focus more on customer perceived value of supplier-customer relationship.

2.1.1 Customer perceived value as a competitive advantage

Deep understanding of how value is perceived by the company's customers is important in today's competitive markets (Eggert et al. 2018). Perceptions of value in business relationships form behavioural and attitudinal outcomes of customers and those outcomes impact for instance the financial performance of the supplier (Arslanagic-Kalajdzic & Zabkar 2015). Researchers agree, that key benefits, key sacrifices and value that customers perceive, are not determined by the company. Yet, right marketing tools and actions used by the company, can

have an influence on customer perceived value. (Arslanagic-Kalajdzic & Zabkar 2015; Blocker 2011.) That is why it is a necessity to companies to continually learn what creates value for their customers and what are their weak points in value creating process, so these weaknesses can be improved (Woodruff 1997). From that information company should generate value propositions that show how value that they are offering, is better compared to competitors' (Blocker 2011).

Payne and Frow (2014) define value proposition as organisations' way of communicating its offering to potential and present customers, demonstrating a promise of value benefits that these customers will obtain during and after the usage experience. To companies, value propositions that are based on customer perceived value, present strategic guidance on how to improve alignment of marketing actions and resource deployment processes (Morgan 2012).

When value propositions are communicated towards previously chosen customers segments, they can help sharpen the positional advantage of the company (Eggert et al. 2018; Morgan 2012). According to Morgan (2012), positional advantage is the causal reason for better performance, and it mirrors the relative (to alternatives available to customers) value actually supplied to target market as a outcome of the marketing strategy decision execution efforts of the company, and the cost of realising this to the company. Positional advantage is more a company-related concept, but it helps to define the superiority of a company relative to its competitors, because it occurs through perceptual processes of customer that are impacted by value propositions. (Eggert et al. 2018.)

It is vital to keep in mind, that customer perceived value is a dynamic concept, meaning that it changes overtime. In the course of time, the perceived value can increase or decrease and the strategically important drivers for customer perceived value are likely to change across different customer segments. Therefore, for companies it is important at regular intervals to track changes in customer perceived value, so they can be better prepared for these changes. (Woodruff 1997.) Flint, Blocker and Boutin (2011) suggest two ways to predict changes in the future. First advice is to establish strong co-operative relationships with customers, and especially with customer companies that are pioneers in their business field, in order to spot the first signs of changes before the competition. Second advice is to collect different primary customer and market data and develop data mining approaches and analysing techniques that focus on changes by customers over time.

Figure 1 helps to portray how customer value proposition should be at the core of company's strategic marketing. The chain of effects, adapted from Eggert's et al. (2018) article, leads from capabilities and resources to organisational performance and emphasises the value propositions' key part within the process. According to Eggert et al. (2018), value propositions have important part in converting organisational capabilities and resources into excellent company performance. The essence of marketing and strategy decisions is captured by propositions. Propositions also influence implementation of marketing strategy and advance company's positional

advantage (Eggert et al. 2018). Many suppliers must adapt their customer and market sensing processes along with collaboration efforts so that they can productively and constantly over time assist customers to create value with all parties involved and thus not be left behind (Flint et al. 2011).

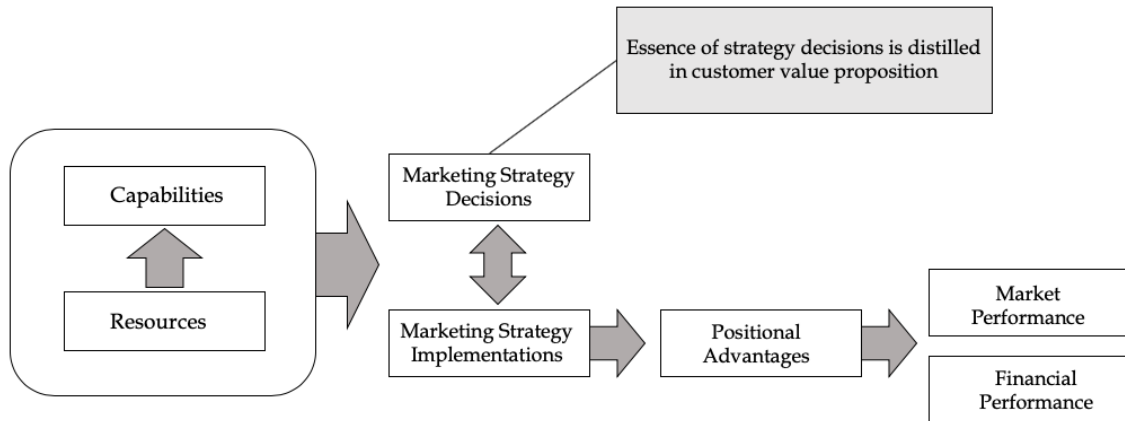


FIGURE 1 Customer value proposition is at the core of strategic marketing (adapted from Eggert et al. 2018).

2.1.2 Customer perceived value in global context

Growing globalization forces marketers to consider how much they can standardise their value proposition, or must they adapt their value proposition across countries and markets (Blocker 2011; Ulaga 2011). Blocker (2011) believes that companies should not assume what constitutes superior value universally across the globe.

Studies have found that cultural differences affect commitment, trust and co-operation. The vaster the cultural differences are between seller and buyer, the more they have negative impact on both parties' trust, commitment and co-operation. (Voldnes et al. 2012.) Moreover, according to Lewin et al. (2010), knowing how cultural differences influence perceptions of satisfaction and performance quality is vital for companies.

As found by Leung, Bhagat, Buchan, Erez, and Gibson (2005), in Chinese supplier-customer relationships both sides emphasise personal trust in personal level more than satisfaction at an organisational level. Whereas according to Cannon, Doney, Mullen, and Petersen (2010), American supplier-customer relationships are strongly focused on performance and profit. Therefore, reviewing the cross-cultural transferability of important constructs in business-to-business markets and possible adaption according to the findings is highly important for companies in global markets

Nonetheless, there are studies where scholars have found significant similarities between different cultures in value assessment. For instance, in Lapierre's (2000) research, findings suggested that at least in some sectors when customers assess value provided by their supplier, they do not act much differently, regardless of cultural differences. Blocker's (2011) research supports

Lapierre's (2000) research, as his research did find differences between few different countries, but the differences were not significant.

The initial inspiration for influence of culture research area is discussed to have come from Hofstede's (1980) seminal study *Culture's Consequences* (Fougère & Moulettes 2007). The second edition of the study was published on 2001, and that version has been used for instance in Blocker's (2011) study. Hofstede's five dimensions of national culture model consists of five dimensions: individualism, power distance, uncertainty avoidance, masculinity and long-term orientation (Fougère & Moulettes 2007; Ulaga 2011). Each of the national cultures involved in the Hofstede's research was assigned a score on each dimension. Thus, the model allows researchers to compare national cultures based on the assigned scores. (Fougère & Moulettes 2007.) In spite that the Hofstede's model has received critique for being vague and the research data is based on time-worn data (Fougère & Moulettes 2007), the model is one of the most commonly accepted and implemented framework for comparing ways of doing business in different cultures (Blocker 2011; Fougère & Moulettes 2007; Ulaga 2011).

Empirical customer perceived value research has mainly focused on domestic, and especially Western, markets (Blocker 2011; Ulaga 2011). Culture's impact on customer perceived value has been studied by a few academics especially in the beginning of 2010's (Blocker 2011; Cannon 2010), but since then there has been a lack of cross-cultural inspection on the subject. In addition, there are several service sectors where the construct of value has not yet been studied, electronics industry being one of them.

2.2 Customer perceived value drivers in B2B relationships

Value studies have been long an object of interest for researchers in business markets context. However, the focus has been mainly on the physical product's value, and hence neglected customer perceived value's relational dimensions. Yet, after research focus shifted to customer value from a relationship marketing perspective, researchers have utilised more relational approach to topic. (Eggert et al. 2018; Ulaga & Eggert 2006b.) Today, it is explicit that the business relationship's value is a multidimensional concept that is more than just the quality vs. price exchange (Lindgreen & Wynstra 2005; Ulaga & Eggert 2006b). Nevertheless, there is no clear consensus among the scholars on the key value dimensions of a business relationships (Arslanagic-Kalajdzic & Zabkar 2015; Ulaga & Eggert 2006b).

Ulaga and Eggert (2006b) present a framework that considers benefits and costs to be more than just economic costs. The framework is based on the idea that there are two central dimensions of value creation (sacrifices and benefits) and three levels in where different value drivers function (core offering, the sourcing process and the customer company's in-house processes). The

framework has been developed qualitatively and empirically tested several times (Blocker 2011; Ulaga 2003; Ulaga and Eggert 2005, 2006b). However, this study concentrates more on Blocker's (2011) revised version of Ulaga and Eggert's (2006b) framework, where time-to-market factor was excluded as tangential to his study as it is more suitable for this study.

According to framework (figure 2), customer perceptions of personal interaction, offer quality, service support, delivery and supplier's know-how are main benefits that positively impact customer perceived value and assessment of direct, operation and acquisition costs are main sacrifices that have negative impact on customer perceived value.

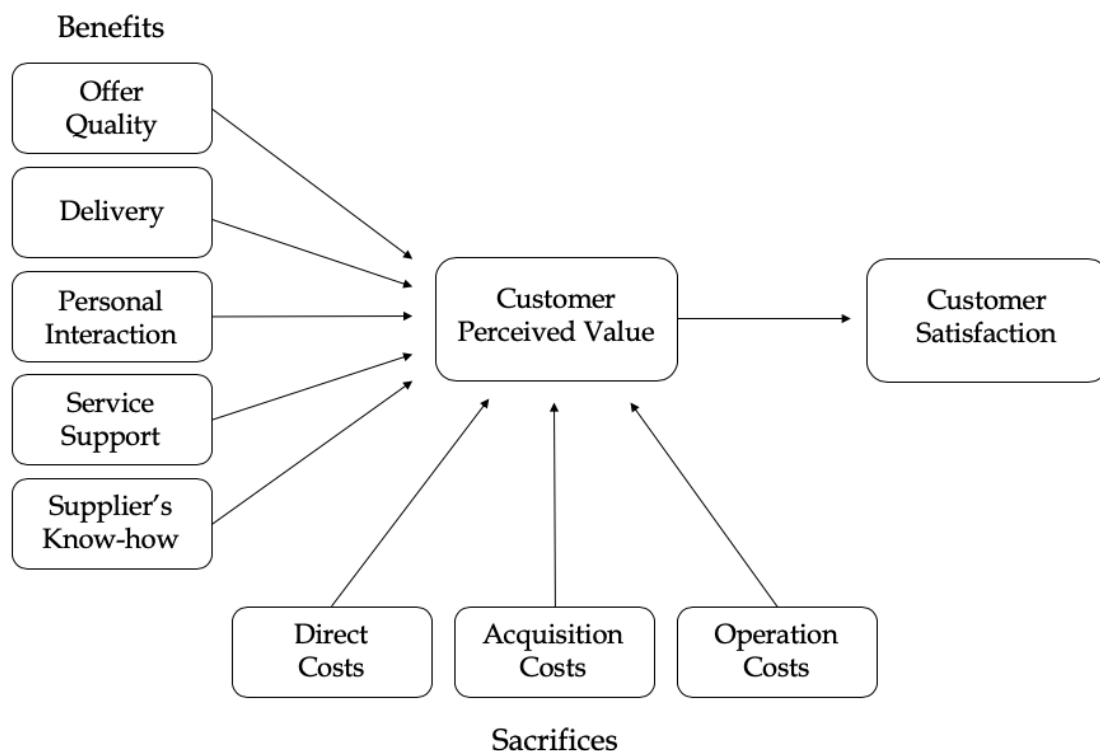


FIGURE 2 Conceptual framework for measuring customer value and value drivers in B2B relationships (adapted and revised from Blocker 2011).

2.2.1 Perceived benefits

Ulaga and Eggert's (2006b) framework's benefits dimension consists of five different value drivers. The first driver *offer quality* is described as the degree to which the product or service of supplier meets customer's product/service-related requirements. Main aspects of quality include reliability, consistency and performance over time. While superior quality can be an effective way for a company to differentiate itself from the competition, its role is limited (Ulaga & Eggert 2006b).

Especially in the literature view, *offer quality* has been in the past thought to be the main driver of customer perceived value in B2B context. Yet, in today's

global economy, *offer quality* is often perceived relatively similar among competitors and therefore customers assess value as more comprehensive picture. (Lewin et al. 2010.)

The second value driver is *delivery*. Supplier can increase the delivery value by keeping up with delivery plans regularly, by being flexible and adapting to changes in deliveries and by always delivering accurately the right parts. Both *offer quality* and *delivery* drivers function on core offering level as sources of value creation.

The third driver is *personal interaction*. Value creation can also happen through personal interaction. High levels of personal interaction, such as knowing the supplier's key contact employees and getting along well with their sales representatives can create value to customers. Interpersonal ties can increase communication and problem solving and therefore lead to a better awareness of both parties' goals.

The fourth value driver is *service support*. Supplier's capacity to provide value-added services can be important value driver. Supplier's level of reaction, i.e. eagerness to address concerns of customers in ongoing relationship, and supplier's capability to cope exchanges of information, e.g. the information exchange speed, derive value for customers. *Personal interaction* and *service support* drivers function on sourcing process level as sources of value creation.

The fifth value driver is called *supplier's know-how*. Admission to technical expertise of supplier can be very valuable and beneficial for customer companies. Supplier's deep understanding of the supply market, previous experience with customer's products and processes and early participation with development of new product solutions are key sources of value creation. Furthermore, because exchanges between know-how and main supplier status are conjointly reinforcing, they help supplier to solidify its position. Stronger position helps supplier to gain more information about client's operations and products and have better insight into customer's processes than any other supplier. *Supplier's know-how* driver functions on customer operations level as sources of value creation.

Traditional purchasing literature emphasizes the importance of sacrifices, i.e. costs, in business markets (Lapierre 2000). However, when scholars started to acknowledge value embedded in relationships, the importance of benefits increased (Ulaga & Eggert 2006b; Wang et al. 2004). Indeed, Ulaga and Eggert's (2006b) study findings suggest that benefits enable a greater possibility for differentiation than do sacrifice attempts. Relationship's benefits explain nearly 80% of the variance in their study. Based on these findings, it can be assumed that relationship benefits dominate when customer company is deciding which supplier it prefers.

2.2.2 Perceived sacrifices

The first five dimensions are expected to impact value positively, but Ulaga and Eggert (2006b) believe there are also three other dimensions that can detract

customer perceived value. These three countervailing factors are called *direct costs*, *acquisition costs* and *operation costs*.

Direct costs mean the actual price, which the supplier charges. It is acknowledged as the core relationship cost driver. Customers usually value supplier's capability to provide reasonable market price and price reductions within long-term agreements. In turn, key supplier benefits from boosted order volumes due to customers promise to compensate lower prices. Furthermore, main supplier is usually offered an opportunity to match compensation.

Acquisition costs are described as costs that go into customer company's sourcing process. Opportunities for cost reduction can be for instance offering inventory management for customer companies and therefore reducing customer's inventory costs. Other opportunities are standardised order processes that decrease order handling costs and customer's decreased incoming inspections costs if suppliers have constantly met delivery requirements.

One way to create value at customer operations' level is to do cost reductions. Supplier can help to shrink these *operation costs* by offering ideas to customer of how manufacturing process costs could be improved. These ideas can be for instance larger integrated product solutions. In addition, tooling costs and warranty costs are one way for value creation through cost reductions. Supplier that constantly offers good quality and has moderately low tooling and warranty cost, is favoured over supplier that normally does not do well on these costs.

2.3 Customer perceived value

Customer perceived value has been typically constructed as customer's exchange between benefits and sacrifices within relationships. However, there has been variety of different ways of how it has been operationalized. (Blocker 2011.) Particularly there has been discussion on whether customer perceived value should be modelled as reflective or formative measure (Blocker 2011; Ulaga & Eggert 2006b).

In reflective measure higher-order constructs are presumed to inflict their dimensions rather than be caused by them. In consequence, dimensions are thought to be strongly associated and substitutable parts of the main construct. (Bollen & Lennox 1991; Ulaga & Eggert 2006b.) Conversely, in formative measure high-order construct is viewed as being initiated by its dimensions. From formative viewpoint, dimensions can be associated with one another, but it is not obligatory as opposed to reflective perspective. (Blocker 2011; Ulaga & Eggert 2006b.)

In the past, reflective specifications of latent variables have often prevailed in the marketing literature (Diamantopoulos & Winklhofer 2001; Ulaga & Eggert 2006b). Indeed, Ulaga and Eggert (2006b) criticise previous customer perceived value studies for their lack of justification for conceptualising relationship value

as a reflective construct. Based on their grounded theory research's findings they propose that from a methodological viewpoint, a formative measurement method should be adopted rather than reflective measures, when relationship value is modelled as a multidimensional construct. Particularly, when value creation is modelled in supplier-customer relationships (Jarvis, Mackenzie & Podsakoff 2003; Ulaga & Eggert 2006b).

Cannon and Perreault (1999), Jarvis, Mackenzie and Podsakoff (2003) and Blocker (2011) all agree that from a buyer behaviour research's perspective formative measurement is theoretically reasoned. They base their argument on that customer can feel that supplier marks high on personal interaction, but low on offer quality. Thus, value drivers do not necessarily correlate with one another and causativeness flows from predecessor sacrifice and benefit driver construct to perceived customer value (Blocker 2011; Ulaga & Eggert 2006b).

However, while Blocker (2011) and Ulaga and Eggert (2006b) both argue that relationship value's reflective models misinterpret the causal importance between the construct and its dimensions, they agree that reflective measures are suitable if relationship value is assumed to be a unidimensional construct on a high level of abstraction. Thus, depending on their research objectives, academics can decide between a unidimensional measure with only few items or multidimensional scale with multiple items (Ulaga & Eggert 2006b).

Consequently, in this study customer perceived value in a supplier-customer relationship is defined as formative multidimensional higher-order construct that symbolises the compromise between the sacrifices and benefits perceived in the supplier's core offering, in the sourcing process, and at the level of a customer's processes and also taking into account the existing substitute supplier relationships.

2.4 Customer satisfaction

The economic benefits of customer satisfaction are vast for companies. Therefore, delivering excellent service and thus confirming high level of customer satisfaction has become strategic necessity for companies. (Jaiswal & Niraj 2011.)

Traditionally, customer satisfaction research has gotten a significant part in marketing literature (Eggert & Ulaga 2002). It is well established in marketing literature that customer satisfaction can be seen as a strong interpreter for behavioural outcomes such as repurchase intents, loyalty and word-of-mouth (Eggert & Ulaga 2002; Ravald & Grönroos 1996). According to Eggert and Ulaga (2002) disconfirmation paradigm is the main influencer in customer satisfaction research field. The paradigm is based on an idea that customer's sense of satisfaction is a consequence of comparison procedure between perceived functioning and one or more point of comparison, such as expectations. If product or service's functioning is equal to what the customer expected, the customer is satisfied (confirming). If the product or service's functioning exceeds

anticipations, the customer is very satisfied (positively disconfirming) or if the functioning stays below anticipations, the customer will be dissatisfied (negatively disconfirming). (Eggert & Ulaga 2002.)

Although many scholars agree on satisfaction's disconfirmation paradigm, there are different opinions of the nature of satisfaction. Others see customer satisfaction as a cognitive process of comparing perceived functioning against some point of comparison, whereas others think that the feeling of satisfaction is an affective state of mind. (Eggert & Ulaga 2002.)

Two different often discussed conceptualisations of customer satisfaction are transaction-specific perspective and cumulative perspective. From a transaction-specific point of view, customer satisfaction is thought to be a post-choice evaluative judgment of a certain buying event, while cumulative customer satisfaction is a total assessment based on supplier's performance and consumption experiences with product or service over time. (Wang et al. 2004.) Although, transaction-specific satisfaction measures can offer detailed info about a specific service or product encounter, cumulative customer satisfaction is a more fundamental indicator of supplier's past, current and future performances (Austen et al. 2012; Wang et al. 2004).

Furthermore, it is important to remember that customer's behaviour is also often influenced by other different factors that company cannot control. Therefore, high level of customer satisfaction should not be company's only goal. (Bennett & Rundle-Thiele 2004.) Jaiswal and Niraj (2011) agree and argue that companies should be careful about spending resources endlessly on customer satisfaction in hopes of changing customers' behaviour, such as customers' willingness to pay more, as after a certain point these do not correlate anymore.

However, there are still many scholars who see that customer satisfaction is positively linked to repurchase intent (Patterson & Spreng 1997), loyalty (Austen et al. 2012; Lam et al. 2004; Williams and Naumann 2011), cross-selling opportunities (Austen et al. 2012), the search for alternatives (Hansen, Samuelsen, & Silseth 2008) and positive word-of-mouth (Austen et al. 2012; Molinari, Abratt, & Dion 2008).

2.4.1 Relationship between customer satisfaction and customer perceived value

Scholars agree that value consequences are normally connected to behavioural and attitudinal consequences. These outcomes have been well recognised and studied in literature. (Arslanagic-Kalajdzic & Zabkar 2015, 2017.) Particularly, scholars are often interested about the nature of causality between customer perceived value and the value outcomes.

Eggert and Ulaga (2002) conducted a study in B2B markets on interrelationship between customer satisfaction and customer perceived value and whether perceived value is a better indicator of behavioural outcomes than customer satisfaction. According to them, value is the outcome of a cognitive comparison procedure, which apprehends any benefit-sacrifice difference.

Contrary to value, satisfaction is often conceptualised as an affective evaluative reaction (Eggert & Ulaga 2002; Patterson & Spreng 1997).

As most satisfaction models are based on the disconfirmation paradigm, satisfaction is considered to be a post-purchase concept (Eggert & Ulaga 2002). This means that customer satisfaction measures how well supplier company is performing with its current market offering, as perceived by existing customers. In other words, customer satisfaction's tactical orientation offers advices of action for how company can improve present services and products. (Eggert & Ulaga 2002.) Scholars Sweeney and Soutar (2001) agree with the previous idea, as they see that satisfaction is a post-purchase and post-use assessment of the bought product or service.

In turn, customer perceived value is independent of the timing of the use of a supplier's product or service and thus it can be described as a pre- or post-purchase concept (Eggert & Ulaga 2002; Lewin et al. 2010). According to Eggert and Ulaga (2002) customer value construct aims at future and therefore its strategic orientation intents to assess how value can be produced for present and potential customers and how supplier's offering can best meet these customer companies' needs. In addition, customer perceived value measurement benchmarks supplier's offering with competitors' offering, unlike customer satisfaction that does not necessarily combine information relating to competitors' market offerings (Eggert & Ulaga 2002). Conceptual differences between customer satisfaction and customer perceived value are presented in table 1 below.

TABLE 1 Conceptual differences between satisfaction and value (adapted from Eggert and Ulaga 2002)

Satisfaction	Customer perceived value
Affective construct	Cognitive construct
Post-purchase perspective	Pre-/post-purchase perspective
Tactical orientation	Strategic orientation
Present customers	Present and potential customer
Supplier's offering	Supplier's and competitors' offerings

Moreover, according to Woodruff (1997) in-dept knowledge about customer perceived value and related problems is needed to back up customer satisfaction measurement, because otherwise it may not provide enough information to guide managers what actions should they take. Just because customer is satisfied with the product or service, it does not inevitably mean that the product or service offers great value to customer. If the costs to obtain the product are too high, customer may consider it poor value, even though customer is very satisfied with the product or service. In contrasts, if customer believes they obtain

good utility for the paid price, a moderately satisfied customer can feel that service or product has a good value. (Petrick 2002.)

Ulaga and Eggert's (2002) research finding showed that the mediated impact model (figure 3), in which customer satisfaction is thought to be a mediating variable between customer perceived value and customer's conative intentions, is better at predicting behavioural outcomes. In other words, customer satisfaction is better predictor of behavioural outcomes than customer perceived value.

Consequently, according to Eggert and Ulaga (2002) and Sweeney and Soutar (2001), customer perceived value and customer satisfaction should be measured and conceptualised as two separate yet complementary concepts. Customer satisfaction should be measured and conceptualised as an affective concept, whereas customer perceived value should be conceptualised as a cognitive variable. Moreover, Wang et al. (2004), Blocker (2011) and Lam et. al (2004) also find that customer satisfaction is influenced by customer perceived value and therefore improvement in value perceived by customer, increases customer's satisfaction towards supplier.

Thus, customer data should include information on how satisfied customers are with supplier's current market offering, but also appraisal of how value is perceived by customers in order to have information for marketing decision making.

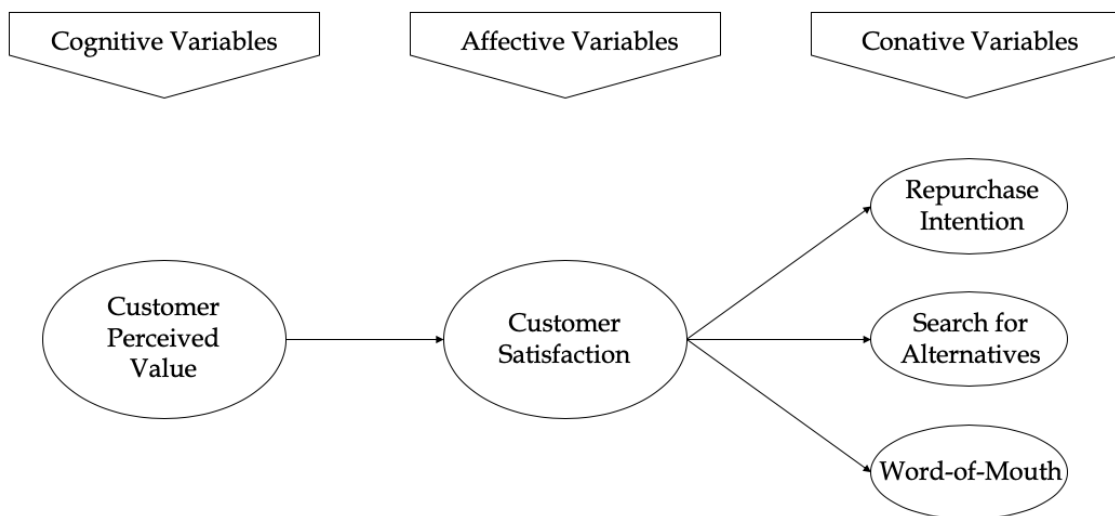


FIGURE 3 The mediated impact model on link between customer perceived value and behavioural outcomes (adapted from Eggert and Ulaga 2002).

2.5 Research model and hypotheses

Research's research model (figure 4) is based on Blocker's (2011) customer perceived value model, who originally based his model on Ulaga and Eggert's

(2006b) customer perceived value model. The model is based on the idea that causativeness flows antecedent sacrifice and benefit driver constructs to customer perceived value and to customer satisfaction.

Small changes were made to adapt the model more suitable for this research. Questions that Blocker (2011) used for measuring direct costs were not suitable for this research and therefore questions measuring price/value for money were adapted from Sweeney and Soutar's (2001) research. According to Sweeney and Soutar (2001), *price/value for money* dimension is described as the utility originated from the product as the result of the reduction of its perceived short-term and longer-term costs. Therefore, the dimension measures functional value, but from the different point of view than *offer quality* dimension. Consequently, these new questions mean that *direct costs* dimension is now measuring value for money and thus named from now on as *price/value for money* dimension. Moreover, the dimension is now seen as a benefit value driver.

As in this research customer perceived value is defined as follows: customer perceived value in business markets is the perception of the functional, emotional and social sacrifices and benefits related to the supplier's offering, usually shaped over a period of time, perceived by important decision-makers in the customer's organisation, taking into account their business relationship and existing alternative supplier offerings in a specific use situation. Therefore, the new *price/value for money* value dimension suits well within this research's research model. Other additions in the research model were country, industry and organisational role as control variables to customer perceived value.

The first research question is to find out the key value drivers of customer perceived value in B2B markets. Based on the previously established theories, the following hypotheses are proposed for determining the key benefit value drivers:

H1a-f: Offer quality, delivery (H1b), personal interaction (H1c), service support (H1d), supplier's know-how (H1e) and price/value for money (H1f) have a direct and positive effect on customer perceived value.

In addition, the following hypotheses are proposed for determining the key sacrifice value drivers:

H1g-h: Acquisition costs (H1g) and operation costs (H1h) have direct and negative effect on customer perceived value.

Furthermore, based on theories on relationship between customer perceived value and customer satisfaction (Eggert & Ulaga 2002; Lewin et al. 2010), the following hypothesis is proposed:

H2: Customer perceived value has a direct and positive effect on customer satisfaction.

Additionally, while no actual hypotheses are not proposed on the relationship between country and customer perceived value, industry and customer

perceived value or organisational role and customer perceived value, the model is assumed to be controlled by these variables.

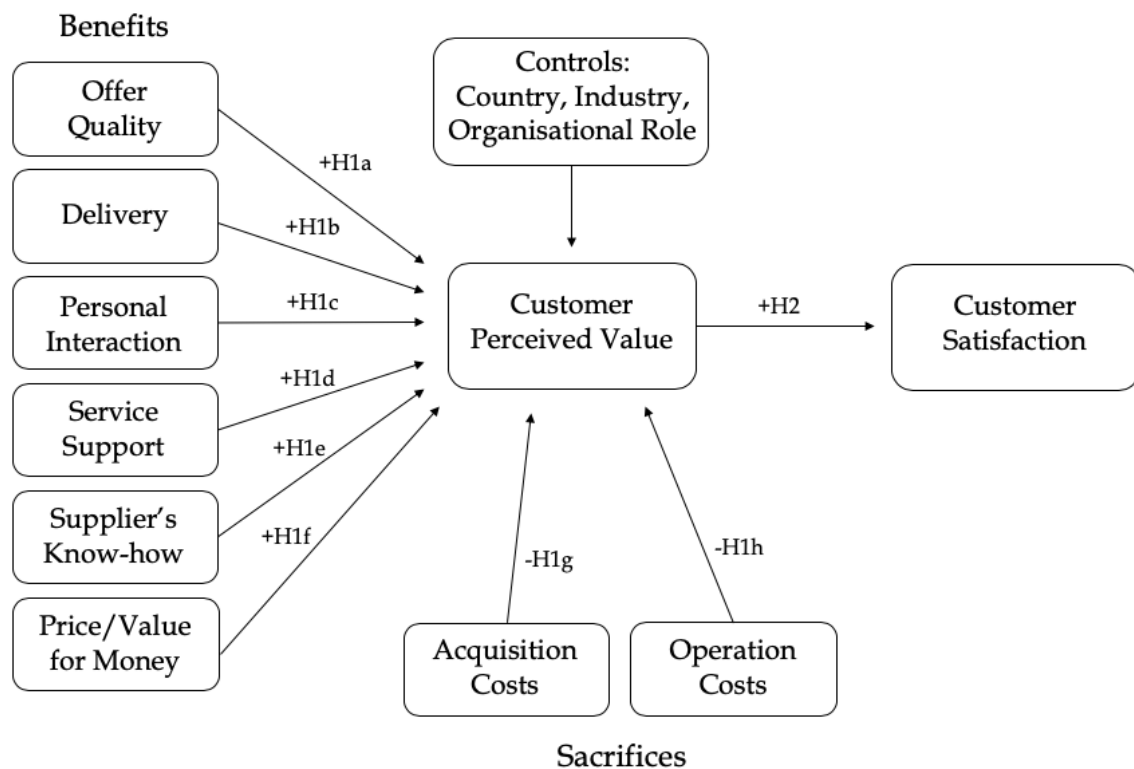


FIGURE 4 Research model and hypotheses (adapted from Blocker 2011; Sweeney and Soutar 2001).

3 DATA AND METHODOLOGY

The data can include several things but remember that data means the empirical material that you use in order to find answers to your research questions. There may be different methodologies for collecting and analysing data.

3.1 Case company introduction

Finnish electronics industry company Beamex Oy Ab is an international provider of calibration solutions that are meant to meet even the most demanding needs of process instrumentation. The company provides a wide range of products and services that include portable calibrations and workstations, calibration software, calibration accessories and industry-specific calibration solutions and professional service. Beamex's products and services are available in more than 130 different countries through its subsidiaries in United States, United Kingdom, France and Germany, branch offices in India, China and Saudi Arabia and wide network of independent distributors. The company has over 12,000 customers worldwide.

Beamex was established in Pietarsaari, Finland in 1975. Nowadays, the company is owned by Finnish Sarlin Group Oy Ab company. Beamex employs approximately 200 employees worldwide and the annual turnover of the company is around 10-20 millions of euros. Moreover, Beamex is one of the three noteworthy companies in its field of business.

Rapidly progressing technology and constant pressure of regulations of manufacturing processes oblige a high level of plant safety and product quality from Beamex's customers. With these things in mind Beamex strives to offer calibration solutions that meet these requirements to its customers. In other words, Beamex does not just provide tools for calibration, but the company also helps its customers to evaluate their current calibration procedures and assist them in implementing new ones. One example of these services are the training courses that Beamex offers to its customers. The training courses can be organised either onsite, offsite or as a web training, so Beamex tries to adjust its training offering according to customer's needs.

The company's slogan is "a better way to calibrate". It was the company's founding principle and to date it still guides everything that the company does. At the same time, "a better way to calibrate" is a value proposition, which the company communicates towards its customers and potential customers. Ideally, the value proposition idealises when the products and services the company offers serve users' needs and therefore create value to the company's customers.

As the products and services Beamex offers are usually a considerable investment from customer's side, the buying process typically takes from one to two years. Furthermore, usual buying process follows the following pattern: First,

customer buys a calibrator. Then after year or two, the customer might buy a calibrator software to support company's calibration process. Finally, if the customer is pleased with the product and service of Beamex, after a few years the customer might buy a larger calibration solution for company's plant or even plants. Hence, the supplier-customer relationships are usually long. These long buying processes and relationships require constant communication from both supplier and customer's side, which emphasises the importance of great sales people and distributors and their interaction towards potential customers and customers. Moreover, in long sales funnels it is important that potential customers are aware of supplier company before the buying becomes topical. Therefore, Beamex's marketing is responsible for increasing awareness of Beamex as a company and boosting company's brand image as a calibration solution specialist and reliable partner for current and potential customers.

3.2 Research method

This research is a descriptive and partly causal quantitative survey study on key customer value drivers of customer perceived value in B2B cross-cultural context. Quantitative measurements are used to conclusively answer to specific research questions or hypotheses using experimental or descriptive techniques. (Malhotra 2017, 151.) In quantitative research the practices and norms are particularly incorporated from natural scientific positivism and model and the emphasis is placed on testing of theories. Researchers using quantitative measurements are interested in studying why things are the way they are, i.e. what causes certain phenomenon. (Bryman & Bell 2011, 26-27, 163).

Therefore, quantitative analysis is based on numerical, percentages and monetary terms that represent the characteristics of something (Hair et al 2015, 153; Krishnaswami & Satyaprasad 2010, 6). Researcher's opinions do not affect the testing of hypotheses as the numbers are provided by the respondents. Nevertheless, it good to remember that research influence the design of the study questions. (Hair et al. 2015, 155.) The variables used for analysis are tested with the suitability of holding the relationship with each other (Krishnaswami & Satyaprasad 2010, 6). The approach's strengths are its structure and representativeness, and thus it is useful for tracking trends (Hair et al. 2015, 154).

One of quantitative research methods is a survey method. The survey method is used for obtaining information, usually in numerical form, that is based on the use of structured questionnaires directed to a sample of a target population. (Hair et al. 2015, 210; Malhotra 2017, 269.) Questionnaire survey enables to contact more easily a larger number of suitable respondents and thus it is useful in describing the characteristics of a large population (Hair et al 2015, 210). Questionnaires are often completed without researcher being present, meaning that the assumption with surveys is that respondents have the motivation and knowledge to complete them on their own. However, usually the

biggest challenge with these kinds of survey types is the low response rate. (Hair et al. 2015, 210-211.) Despite the challenges, survey method is the most common research method of primary data collection in marketing research (Malhotra 2017, 270).

Research's survey was executed as an online survey. According to Malhotra (2017, 273-274) there are several benefits with using online surveys. First, online surveys are popular as they are fast to conduct, especially when conducting an international study. Second, when electronic survey is designed, it is easy to email to respondents no matter is the respondent number 10 or 10,000, meaning that there is no stationery, printing or postage cost. Third, data preparation for analysis needs less manual work and it is cheap. Fourth, online surveys remove interviewer bias. Fifth, validity and logic check in can be built in to ensure the data quality. Finally, participants can be reluctant to complete postal or face-to-face surveys, online surveys help to contact certain target groups.

Online survey's disadvantages can be sampling frame challenges with self-selecting sample, participants' difficulties to access the web or technical problems related to device or software the participants are using (Malhotra 2017, 274).

3.3 The questionnaire

According to Malhotra (2017, 374), questionnaire is a structured technique for collecting data that consists of series of written or verbal questions, that participants answer. In this study we used fixed-response alternative questions, which is typical questionnaire type. Fixed-response alternative questions require respondents to select from a predetermined set of responses. This questionnaire type has many advantages, such as it is easy to administer, obtained data is consistent as the responses are restricted to the choices listed, fixed-response questions reduce the inconsistency in results that may be caused by variances in interviewers and coding, analysis and interpretation of the data is rather simple. The weaknesses are that respondents can be unwilling or unable to provide the wanted information, possible loss of validity for certain type of data, such as feelings and beliefs, and wording questions in a constant manner to all possible survey partakers is not easy. Therefore, researcher must ensure that the logic and language used in questionnaire is valid and meaningful to all possible participants. (Malhotra 2017, 269-270.)

The questionnaire used in this study is given in Appendix 1 and briefly discussed next. All the questions used in this research were taken from previous studies, thus the measures were all previously tested and validated. The survey consisted of overall 36 question and statements, of which 4 questions were background variable questions and one question asked willingness to participate in draw, that was used to encourage people to take part in the survey. Obligatory background variable questions were country, organisational role and industry

and one optional question that asked respondent's company name, which was used to track what companies answered the survey. However, it is important to note that individual responses could not be distinguish regardless of the company name question.

The customer perceived value was measured by using Blocker's (2011) model that is based on Ulaga and Eggert's original model (2006b). However, in this research model, delivery was added as a benefit value driver even though Blocker (2011) did not use it in his own research model.

Three questions measured offer quality and the questions were based on researches by Homburg, Kuester, Beutin and Menon (2005) and Ulaga and Eggert (2006b). Delivery was measured with using three questions based on Ulaga and Eggert's (2006b) research. Personal interaction was measured with using three questions based on Gremler and Gwinner's (2000) and Ulaga and Eggert's (2006b) researches. Service support was measured with using three questions based on Ulaga and Eggert's (2005) and (2006b) researches. Supplier's know-how was measured with using three questions based on Lapierre's (2000) and Ulaga and Eggert's (2006b) researches. Customer value was measured with using four questions based on Gao, Sirgy and Bird's (2005) and Ulaga and Eggert's (2006b) researches. Price/value for money was measured with using three questions based on Sweeney and Soutar's (2001) research.

In all the above-mentioned questions, respondents marked their answers on a scale from 1 (strongly disagree) to 7 (strongly agree). Questions started with a sentence "Compared to what we expect from our company's best service providers, (with) Beamex..." and then continued with a defining question, such as "Consistently provides quality products and services to us over time." (offer quality) or "Is reasonably priced." (price/value for money).

Acquisition costs were measured with using three questions based on Cannon and Homburg's (2001) and Ulaga and Eggert's (2006b) researches and operation costs were measured with using three questions based on Cannon and Homburg's (2001) and Ulaga and Eggert's (2006b) researches.

In both above-mentioned questions, respondents marked their answers on a scale from 1 (costs are much lower) to 5 (costs are much higher) or with a sixth answer option "Don't know.". Questions started with a sentence "How do each of the following (actualized) costs of Beamex compare with the expected costs of the service?" and then continued with a defining question, such as "Implementation costs to begin using the service your firm purchased." (acquisition costs) or "Ongoing operating costs to maintain the service." (operation costs).

Customer satisfaction was measured with using three questions based on Lam's et al. (2004) and Ulaga and Eggert's (2006b) researches. Respondents marked their answers on a scale from 1 (strongly disagree) to 7 (strongly agree) to questions "In general, my company is very satisfied with the services offered by Beamex." and "Overall, my company is very satisfied with its relationship with Beamex." and on a scale from 1 (extremely dissatisfied) to 7 (extremely satisfied) to a question "Overall, how satisfied is your company with Beamex?".

3.4 Data collection

The survey was carried out by using Webropol survey software. Before sending, the survey was tested with three company employees to ensure all the questions can be understood. After testing of the survey, research's data was collected by sending a survey invitation link via email to Beamex's customers who usually receive English marketing communication. These customers were selected to ensure that they definitely understand the survey questions as they were in English. Customers were from countries, such as Unites States, India and South Africa. To encourage people to answer to the survey, ten Amazon gift cards were raffled between the respondents.

The study was implemented during time 26.2.-13.3.2019. The survey invitation link was sent to 9,670 customer contacts, of which 9,292 contacts actually received the survey invitation. The reason why 378 customer contacts did not receive the email might be that they had incorrect email address in their contact details, or the email could not be successfully delivered for unknown reason. Of 9,292 invitation receivers, 1,884 opened the email and 161 answered the survey. Each respondent was able to take the survey only once. Therefore, the survey's answer percentage is 9.0% based on the number of people who opened the email invitation. If the answer percentage is based on the number of people who actually received the email invitation, the answer percentage is 2.0%.

3.5 Data analysis

To conduct data analysis the research data was exported from Webropol survey software to SPSS Statistics software. First, the raw data was prepared by using SPSS. As all questions that were related to actual research questions were obligatory, there were no missing values. After preparation of data, SPSS was used for descriptive analyses, such as frequencies.

Next, the exploratory factor analysis (EFA) was made as a pre-analysis. In EFA, all variables are analysed together in order to identify underlying factors or patterns. In other words, factor analysis summarizes information from a large number of variables into a smaller number of factors or variables to identify patterns. (Hair et al. 2015, 411.)

Finally, after exploratory factor analysis, confirmatory factory analysis was made by using SmartPLS software. Confirmatory factor analysis, or more commonly structural equation modelling (SEM), can help test the theoretical relationships based upon theory. Simply put, the purpose of structural equation modelling is to either confirm or abandon conception based on empirical data. (Karjaluoto 2007; Malhotra 2017, 797.)

4 RESULTS AND ANALYSIS

The following chapter will present the results of the data that was analysed as explained in the previous chapter. First, we will go through the background information of the collected data, then questions related to benefits and sacrifices, customer perceived value and also customer satisfaction, then results of factor analysis and finally results of confirmatory phase analysis.

4.1 Background information

In total 161 respondents took the research survey. The background information of the collected data is presented in table 2. The respondents came from 36 different countries. Most of respondents were from United States (33.5%). The second largest group was respondents from United Kingdom (13.7%), the third largest group was respondents from Finland (9.3%) and the fourth largest group was respondents from India (8.1%). The rest of the countries had percentage values between 0.6-3.7%.

The most frequent industry among the respondents was power and energy (no nuclear) (20.5%). The second most frequent industry was oil and gas (17.4%) and the third most frequent industry was other (9.9%), meaning that respondents who chose the option other did not have their industry listed in the list of industries to choose from.

Of the 161 respondents, 54.0% chose technician/engineer as the organisational role to best describe their position in the company. The second most frequent organisational role was supervisor/maintenance manager (25.5%) and the third most frequent was senior management/executive management (9.3%).

TABLE 2 Background information

Country	%	N
Australia	3.7	6
Austria	0.6	1
Bahrain	0.6	1
Belgium	1.2	2
Brazil	0.6	1
Canada	2.5	4
Czech Republic	1.9	3
Denmark	0.6	1

(continues)

Table 2 (continues)

Estonia	0.6	1
Finland	9.3	15
Germany	0.6	1
India	8.1	13
Indonesia	0.6	1
Ireland (Republic)	1.9	3
Italy	1.9	3
Kenia	0.6	1
Korea South	1.2	2
Kuwait	0.6	1
Lithuania	0.6	1
Netherlands	3.1	5
New Zealand	0.6	1
Nicaragua	0.6	1
Norway	1.9	3
Pakistan	0.6	1
Portugal	0.6	1
Romania	1.2	2
Saudi Arabia	0.6	1
South Africa	1.2	2
Spain	0.6	1
Sweden	1.2	2
Switzerland	0.6	1
Taiwan	0.6	1
Turkey	0.6	1
United Arab Emirates	0.6	1
United Kingdom	13.7	22
United States	33.5	54
Total	100.0	161

Industry	%	N
Aviation	2.5	4
Automotive	0.6	1
Calibration service	5.6	9
Contractor engineering	1.9	3
Education	0.6	1
Food and beverage	4.3	7

(continues)

Table 2 (continues)

Manufacturing	8.1	13
Metal and mining	1.9	3
Nuclear	3.1	5
Oil and gas	17.4	28
Petrochemical – Chemical	9.3	15
Pharmaceutical	9.3	15
Power and energy (no nuclear)	20.5	33
Pulp and water	2.5	4
Water and wastewater	2.5	4
Other	9.9	16
Total	100.0	161

Organisational role	%	N
Technician/engineer	54.0	87
Supervisor/maintenance manager	25.5	41
Quality assurance	3.7	6
Senior management/executive management	9.3	15
Other	7.5	12
Total	100.0	161

4.2 Questions related to benefits and sacrifices

In this chapter questions related to customers' perceived benefits and sacrifices are inspected in a more detailed manner. These dimensions were measured using 24 different statements and questions based on Blocker's (2011) and Sweeney and Soutar's (2001) research models. Questions' means and standard deviations are presented in table 3.

Offer quality's perceived value was measured with three different statements (OFFER1-OFFER3). The statements received rather consistent and high means (5.63-5.79), meaning that customers value company's offer quality. *OFFER3 Provides us with excellent quality products and services* statement had the highest mean (5.79) and 72.7% of all the respondents either *agreed* or *agreed strongly* with the statement. Moreover, the standard deviations of the offer quality statements were also quite consistent, as the values varied from 1.278 to 1.301. In addition, the chi-square statistic was used to test the statistical significance of the detected association in a cross-tabulation. The analysis helps to define whether a systematic association occurs between the two variables.

(Malhotra 2017, 576.) However, no statistically significant association was found between offer quality and country (cultural effect), offer quality and industry or offer quality and organisational role.

Personal interaction's perceived value was measured with three different statements (INTERAC1-INTERAC3). Personal interaction's statements received consistent and high means as well (5.64-5.79), implicating that respondents feel that relationship between the case company Beamex and its customers is good and working. *INTERAC3 Is very easy to work with* received highest mean (5.79) and 42.2% *agreed* and 31.7% *strongly agreed* with the statement. In addition, standard deviations among the personal interaction statements were consistent as well (1.330-1.339). Furthermore, statistically significant association was not found between personal interaction and country (cultural effect), personal interaction and industry or personal interaction and organisational role.

Service support's perceived value was also measured with three different statements (SUPPORT1-SUPPORT3). The statements received high means (5.49-5.81), which suggest that respondents feel they receive good service support from Beamex. *SUPPORT2 Always gives us the appropriate information when we need it* statement had the highest mean (5.81) and 72.2% of the respondents either *agreed* or *strongly agreed* with the statement. Statements *SUPPORT1 Provides us with excellent support services* and *SUPPORT3 Gives us excellent support to deal with day-to-day issues* had higher standard deviations (1.505 and 1.513), whereas *SUPPORT2 Always gives us the appropriate information when we need it* had a lower standard deviation (1.321) compared to the previous two. However, statistically significant association was not found between service support and country (cultural effect), service support and industry or service support and organisational role.

Delivery's perceived value was measured with three different statements (DELIV1-DELIV3). All three statements received high means (5.38-5.72), meaning that on average customers are satisfied with deliveries. *DELIV3 Deliveries are more accurate (no missing or wrong parts)* had the highest mean (5.72) of the three and 44.1% of the respondents *agreed* and 26.7% *strongly agreed* with the statement. Statements' standard deviations varied from 1.173 to 1.308. Even though respondents' answers were quite consistent, the chi-square test analysis showed statistically significant association between statement *DELIV2 We have less delivery errors* and respondent's country. The chi-square test value was high (241.27) and showed high statistical significance (sig. = 0.001). Therefore, the null hypothesis is rejected. Moreover, contingency coefficient analysis was used to assess the strength of the association. The closer the value is to 1, the stronger the strength of the association is. (Malhotra 2017, 578-579.) The association between *DELIV2* and country had a value 0.774, indicating strong association strength. Consequently, the result suggest that respondent's country has an effect on delivery's perceived value. However, closer examination of the analysis revealed that most of the answers varied from *neither agree nor disagree* to *strongly agree* and only few individual respondents from countries Spain, South Africa, Finland, Australia and South Korea had answered either *disagree somewhat* or *strongly*

disagree. Rest of the delivery's value measuring statements and country, delivery and industry or delivery and organisational role had no statistically significant association.

Supplier's know-how was measured with three different statements (KNOWH1-KNOWH3). The statements received high means as well (5.36-5.60), which suggest that respondents feel that they benefit from Beamex's know-how. *KNOWH1 Provides specialized expertise to help us in our industry* statement had the highest mean (5.60) and 65.8% of the respondents either *agreed* or *strongly agreed* with the statement. Moreover, the standard deviations of the supplier's know-how statements were quite consistent, as the values varied from 1.329 to 1.412. Furthermore, no statistically significant association was found between supplier's know-how and country (cultural effect), supplier's know-how and industry or supplier's know-how and organisational role.

Price/value for money's perceived value was measured with three statements (PRICE1-PRICE3) as well. The means of the statements varied from 4.65 to 5.48, meaning that respondents feel that they receive value for the money they pay for the product/service. While most of the previous statements had received more positive-oriented answers, statement *PRICE1 Is reasonably priced* had more variety in its answers than the others: 19.3% of the respondents *neither agreed nor disagreed* and 18.7% either *disagreed somewhat* or *disagreed*. Nevertheless, most of the respondents still *agreed somewhat* or *agreed* (55.9%) with the statement. The standard deviations of the statements varied between 1.315-1.424.

Additionally, when chi-square test was conducted on price/value for money's statements, the analysis showed that there is statistically significant association between statement *PRICE3 Offers a good product for the price* and respondent's industry ($\chi^2=135.92$, sig. = 0.001) and statistically highly significant association between statement *PRICE3 Offers a good product for the price* and respondent's country ($\chi^2=312.34$, sig. = 0.000). Therefore, the null hypotheses of the previously stated associations are rejected. The contingency coefficient analysis presented value 0.677 for PRICE3 and industry and value 0.812 for PRICE3 and country, indicating a strong association strength for both associations. Consequently, the results suggest that respondent's country and industry have an effect on perceived value of the price/value for money. When inspecting answers more accurately from industry point of view, there were individual respondents from industries power and energy (no nuclear), pharmaceutical, manufacturing, contractor engineering, calibration service, oil and gas, petrochemical - chemical and aviation, that had answered that they either *disagree somewhat* or *disagree strongly* with the statement. However, most of the respondents still either *agreed* or *agreed strongly* with the statement. When inspecting answers more accurately from country point of view, there were again only individual respondents from countries United States, United Kingdom, South Africa, South Korea, Ireland (Republic), Portugal, Czech Republic, Finland and Canada, that had answered that they either *disagree somewhat*, *disagree* or *disagree strongly* with the statement. Yet, most of the respondents still either *agreed* or *agreed strongly* with the statement. Rest of the price/value for money's value

measuring statements and country or industry and price/value for money or organisational role and price/value for money had no statistically significant association.

Acquisition costs' perceived value was measured with three different questions (ACQCOSTS1-ACQCOSTS3). The means of the questions varied between 3.73-3.94. As the answer scale varied from 1-*costs are much lower* to 5-*costs are much higher* (note, sixth answer option was *don't know*), means from 3 to 1 indicate respondents' positive feelings toward acquisition costs. Question ACQCOSTS1 *Implementation costs to begin using the service your firm purchased* had the highest mean (3.94) and 31.1% of the respondents said that *costs are the same* and 26.1% said that *costs are somewhat higher* when comparing actualised costs to expected costs of the service. Yet, 18.8% of the respondents did not know the current cost situation in their company. In addition, the standard deviations of the questions varied from 1.321 to 1.400. Furthermore, after conducting chi-square test, no statistically significant association was found between acquisition costs and country, acquisition costs and industry or acquisition costs and organisational role.

Operation costs' perceived value was measured with three different statements (OPERCOSTS1-OPERCOSTS3). The statements received rather consistent means (3.63-3.77), meaning that respondents feel that actualised ongoing costs are rather same or somewhat higher than expected ongoing costs. Question OPERCOSTS1 *Ongoing operating costs to maintain the service* had the highest mean (3.77) and 39.1% of the respondents said that *costs are the same* and 23.0% said that *costs are somewhat higher* when comparing actualised costs to expected costs of the service. Furthermore, the standard deviations of the questions were rather consistent between the questions as they varied between 1.300-1.398. Additionally, chi-square test results showed that there is statistically highly significant association between question OPERCOSTS1 *Ongoing operating costs to maintain the service* and country ($\chi^2=247.78$, sig. = 0.000) and statistically significant association between OPERCOSTS1 *Ongoing operating costs to maintain the service* and industry ($\chi^2=95.53$, sig. = 0.048) and OPERCOSTS1 *Ongoing operating costs to maintain the service* and organisational role ($\chi^2=37.88$, sig. = 0.009). While the contingency coefficient analysis indicated strong association strength between OPERCOSTS1 and country (0.779) and OPERCOSTS1 and industry (0.612), the association strength between OPERCOSTS1 and organisational role is existing, but not as strong as the previously established (0.436).

When inspecting closer the country's role regarding the question about ongoing operating costs to maintain the service, the respondents' answers show that while individual respondents from countries, such as United States, United Kingdom, United Arab Emirates and South Africa feel that *costs are somewhat lower or much lower* when comparing actualised and expected costs, most of the respondents feel that *cost are the same* or *costs are somewhat higher*. The same pattern recurs when comparing ongoing operating costs to maintain the service in industry context, as only few individual respondents feel that *costs are*

somewhat lower or *much lower*. Only in industries power and energy (no nuclear) and petrochemical – chemical more than one respondent feel that *costs are somewhat lower*. In addition, the closer inspection from the organisational role point of view showed that when comparing to other organisational roles, more often technicians/engineers don't know what the current situation is when comparing actualised ongoing operating costs to maintain the service to expected costs.

The chi-square test results also indicated that there is statistically highly significant association between question *OPERCOSTS2 Ongoing costs of monitoring provider performance* and country ($\chi^2=261.89$, sig. = 0.000) and *OPERCOSTS3 Ongoing costs of coordinating communication between your firm and this provider* and country ($\chi^2=278.72$, sig. = 0.000). Moreover, the contingency coefficient analysis showed strong association strength for both *OPERCOSTS2* and country (0.787) and *OPERCOSTS3* and country (0.796), indicating that respondent's country has an effect on how respondents feel about ongoing costs of monitoring provider performance and ongoing costs of coordinating communication between your firm and this provider.

When inspecting in a more detailed manner country's role on a question ongoing costs of monitoring provider performance, the most frequent answer is *costs are the same*. However, there are countries such as Australia or India, where after the most frequent answer *costs are the same*, the rest of the answers are either more negative (Australia, Finland, United States) or more positive (India). Nevertheless, 21.1% of the respondents don't know what the current situation is when comparing actualised ongoing costs of monitoring provider performance to expected costs. Additionally, when inspecting in a more detailed manner country's role on a question ongoing costs of coordinating communication between your firm and this provider, the most frequent answer is *costs are the same* as well, but there are countries such as United States, United Kingdom, Finland and Australia where after the *costs are the same* option, the rest have most often chosen either answer *costs are somewhat higher* or *costs are higher*. Nevertheless, when reviewing the answers in total, 11.8% of the respondents have chosen the option *costs are somewhat higher*, 8.7% think that costs are somewhat lower and 18.0% of the respondents don't know what the current situation is when comparing actualised ongoing costs of coordinating communication between their firm and Beamex to expected costs.

TABLE 3 Means and standard deviations of questions related to benefits and sacrifices

ITEM	MEAN	STANDARD DEVIATION
OFFER1 Exceeds our standards for quality products and services.	5.63	1.298
OFFER2 Consistently provides quality products and services to us over time.	5.63	1.278

(continues)

Table 3 (continues)

OFFER3 Provides us with excellent quality products and services.	5.79	1.301
INTERAC1 Maintains excellent personal interaction with our people.	5.64	1.330
INTERAC2 Has built a very good working relationship with us.	5.67	1.337
INTERAC3 Is very easy to work with.	5.79	1.339
SUPPORT1 Provides us with excellent support services.	5.61	1.505
SUPPORT2 Always gives us the appropriate information when we need it.	5.81	1.321
SUPPORT3 Gives us excellent support to deal with day-to-day issues.	5.49	1.513
DELIV1 Performs better in meeting delivery due dates.	5.38	1.308
DELIV2 We have less delivery errors.	5.52	1.173
DELIV3 Deliveries are more accurate (no missing or wrong parts).	5.72	1.179
KNOWH1 Provides specialized expertise to help us in our industry.	5.60	1.329
KNOWH2 Uses their firm's know-how to help us drive innovation in our own business processes.	5.37	1.405
KNOWH3 Applies their firm's knowledge to help us improve our business processes.	5.36	1.412
PRICE1 Is reasonably priced.	4.65	1.424
PRICE2 Offers value for money.	5.25	1.315
PRICE3 Offers a good product for the price.	5.48	1.383
ACQCOSTS1 Implementation costs to begin using the service your firm purchased.	3.94	1.321
ACQCOSTS2 Ordering costs to obtain the service.	3.73	1.337
ACQCOSTS3 Administrative costs to coordinate the initial set-up with this provider.	3.73	1.400
OPERCOSTS1 Ongoing operating costs to maintain the service.	3.77	1.300
OPERCOSTS2 Ongoing costs of monitoring provider performance.	3.71	1.398
OPERCOSTS3 Ongoing costs of coordinating communication between your firm and this provider.	3.63	1.345

4.3 Questions related to customer perceived value

In this chapter questions related to customer perceived value are inspected in a more detailed manner. Customer perceived value was measured using four different statements based on Blocker's (2011) research model. Questions' means and standard deviations are presented in table 4.

Customer perceived value was measured with four different statements (VALUE1-VALUE4). The value statements received consistent and high means that varied from value 5.09 to 5.33. Statement *VALUE1 Creates superior value for us when comparing all the costs versus benefits in the relationship* had the highest mean (5.33) and 45.3% of the respondents *agreed* and 23.0% *agreed somewhat* with the statement. The standard deviations of the statements varied between 1.234-1.383. According to chi-square test, no statistically significant association was found between customer perceived value and country (cultural effect), customer perceived value and industry or customer perceived value and organisational role.

TABLE 4 Means and standard deviations of questions related to customer perceived value

ITEM	MEAN	STANDARD DEVIATION
VALUE1 Creates superior value for us when comparing all the costs versus benefits in the relationship.	5.33	1.234
VALUE2 Considering the costs of doing business with this service provider, we gain a lot in our overall relationship with them.	5.31	1.329
VALUE3 The benefits we gain in our relationship with this provider far outweigh the costs.	5.09	1.362
VALUE4 Our company gets significant customer value from this provider relationship.	5.30	1.383

4.4 Questions related to customer satisfaction

In this chapter questions related to customer satisfaction are inspected in a more detailed manner. Customer satisfaction was measured using three different statements based on Blocker's (2011) research model. Questions' means and standard deviations are presented in table 5.

Customer satisfaction was measured with three different statements (SAT1-SAT3) as well. The customer satisfaction received also high and consistent means, which varied from value 5.81 to 5.94. Statement *SAT3 Overall, how satisfied is your company with Beamex?* received the highest mean (5.94) and 49.7% of the respondents feel that their company is *satisfied* with Beamex and 31.7% of the

respondents feel that their company is *extremely satisfied* with Beamex. The customer satisfaction statements' standard deviations varied between 1.163-1.319. Furthermore, the chi-square test results indicated that there is no statistically significant association between customer satisfaction and country (cultural effect), customer satisfaction and industry or customer satisfaction and organisational role.

TABLE 5 Means and standard deviations of questions related to customer satisfaction

ITEM	MEAN	STANDARD DEVIATION
SAT1 In general, my company is very satisfied with the services offered by Beamex.	5.82	1.318
SAT2 Overall, my company is very satisfied with its relationship with Beamex	5.81	1.319
SAT3 Overall, how satisfied is your company with Beamex?	5.94	1.163

4.5 Factor analysis

Before conducting the exploratory factor analysis, the matrix of correlation coefficients between single items was measured. Correlation coefficients measure whether two or more variables are linked, i.e. does the variable systematically and consistently change relative to another variable (Hair et al. 2015, 372). In this research, all the relationships between different items were statistically highly significant ($p < 0.01$) and the correlation coefficients in the matrix varied from 0.535 (VALUE1 with SAT3) to 0.883 (VALUE1 with VALUE2) and thus showed good results.

Next, Kaiser-Meyer-Olkin (KMO) test was used test sampling adequacy, i.e. whether the set of items chosen are appropriate for exploratory factor analysis. Values between 0.5 and 1.0 indicate that conditions for factor analysis are suitable. (Malhotra 2017, 712.) The KMO test result for this research was 0.932 indicating that circumstances for factor analysis were excellent (Karjaluo 2007). Moreover, Bartlett's test of sphericity showed that preconditions for factor analysis were good (Sig. $< .01$), as there was enough correlation between the variables.

Next, the communality for each item was established. Communality is the amount of item's variance that is explained by the factors that are present (Blaikie 2003, 221). If the communality value is small ($< .3$), variable should be left out from factor analysis, if its presence is not necessity theory-wise (Karjaluo 2007). In this research communalities varied from 0.491 to 0.831 and thus exceeded the satisfactory level.

The exploratory factor analysis resulted in overall four different factors based on the initial eigenvalues and principal axis factoring (table 6). Eigenvalue

measures the amount of total variance for which each factor accounts. Only eigenvalues greater than 1.0 should be considered. (Blaikie 2003, 223.) All the four factors explain 71.9% of the total variance when they are combined. The first factor included items INTERAC1, INTERAC3, SAT2, INTERAC2, SUPPORT1, SAT1, SUPPORT3, SUPPORT2, DELIV1, SAT3, DELIV3, OFFER3, DELIV2, OFFER2 and OFFER1 and it explained 32.3% of the total variance. The second factor included items PRICE2, PRICE1, PRICE3, VALUE2, VALUE1, VALUE3 and VALUE4 and it explained 17.9% of the total variance. The third factor included items ACQCOSTS2, OPERCOSTS2, OPERCOSTS3, OPERCOSTS1, ACQCOSTS1 and ACQCOSTS3 and it explained 13.0% of the total variance. The last factor included items KNOWH2, KNOWH3 and KNOWH1 and it explained 8.7% of the total variance.

TABLE 6 The rotated factor matrix

ITEM	FACTOR1	FACTOR2	FACTOR3	FACTOR4
INTERAC1	0.866			
INTERAC3	0.861			
SAT2	0.834			
INTERAC2	0.807			
SUPPORT1	0.776			
SAT1	0.752			
SUPPORT3	0.717			
SUPPORT2	0.710			
DELIV1	0.697			
SAT3	0.665			
DELIV3	0.647			
OFFER3	0.628			
DELIV2	0.618			
OFFER2	0.594			
OFFER1	0.578			
PRICE2		0.792		
PRICE1		0.764		
PRICE3		0.704		
VALUE2		0.675		
VALUE1		0.665		

(continues)

Table 6 (continues)

VALUE3	0.649	
VALUE4	0.608	
ACQCOSTS2		0.830
OPERCOSTS2		0.828
OPERCOSTS3		0.811
OPERCOSTS1		0.808
ACQCOSTS1		0.786
ACQCOSTS3		0.746
KNOWH2		0.658
KNOWH3		0.645
KNOWH1		0.591

As the table above shows, most of the items measuring benefits loaded on the same factor in exploratory factor analysis. Only items measuring supplier's know-how loaded on its own factor. Moreover, items measuring price/value for money and items measuring customer perceived value loaded on the same factor. Also, items measuring acquisition costs and operation costs loaded on the same factor.

However, as the meaning is to study offer quality, delivery, personal interaction, service support, price/value for money, acquisition costs, operation costs, customer perceived value and customer satisfaction as individual factors, these constructs were separated in nine different factors, so in total we have ten individual factors that are based in the previously presented theory. These ten factors were used next for confirmatory factor analysis.

4.6 Confirmatory phase: the measurement model

The structural equation model (SEM) allows to estimate complex simultaneous system equations that often involve latent unobservable constructs that can be exogenous or endogenous (Hair et al. 2015, 452). Thus, it can help test the theoretical relationships based upon theory (Malhotra 2017, 797). The model analysis consists of two components: the measurement model and structural model, which we will go through in the chapter 4.7 (Venturini & Mehmetoglu 2017). The measurement model, or outer model, concentrates on the estimation of the loadings and the validity and reliability of the latent constructs (Hair et al. 2015, 453).

Before the actual analysis, the factor structures from exploratory factor analysis were modified to fit better with previously presented theory. The first

factor that included variables measuring personal interaction, service support, delivery, offer quality and customer satisfaction was separated into five different factors according to the framework. The second factor that included variables measuring price/value for money and customer perceived value was separated into two different factors. The third factor that included variables measuring acquisition costs and operation costs was also separated into two different factors.

Therefore, the final factor structure consisted of ten different factors, which were named as follows: 1) Offer quality (OFFER1, OFFER2, OFFER3), 2) Delivery (DELIV1, DELIV2, DELIV3), 3) Personal interaction (INTERAC1, INTERAC2, INTERAC3), 4) Service support (SUPPORT1, SUPPORT2, SUPPORT3), 5) Supplier's know-how (KNOWH1, KNOWH2, KNOWH3), 6) Price/value for money (PRICE1, PRICE2, PRICE3), 7) Acquisition costs (ACQCOSTS1, ACQCOSTS2, ACQCOSTS3), 8) Operation costs (OPERCOSTS1, OPERCOSTS2, OPERCOSTS3) 9) Customer perceived value (VALUE1, VALUE2, VALUE3, VALUE4) 10) Customer satisfaction (SAT1, SAT2, SAT3).

The first step was to assess the indicator loadings and their significance. Measurement loadings vary from 0 to 1. The closer the loadings are to value 1.0, the more reliable that variable. (Garson 2016.) In general, the standardised loadings should have value above 0.7 (Hair et al. 2015, 447). In addition, statistical significance of the factor loadings can be assessed by inspecting their associated *t*-value. In order to be significant at the 5-percentage level, *t*-value should be over 1.96. (Garson 2016, Hair et al. 2015, 445, 447.) In this research all the loadings were greater value than 0.7, so latent variables can be considered as reliable. Also, all the *t*-values of the loadings exceeded value 1.96, thus they can be considered to be statistically significant. All the factor loadings and *t*-values are presented in table 7.

Construct's reliability can be tested either with Cronbach's alpha or with composite reliability. As both Garson (2016) and Hair et al. (2015, 447) suggest using composite reliability to assess reliability of the construct as it is often more accurate, composite reliability was used to measure research model's internal consistency. Composite reliability varies from 0 to 1, thus the higher the value is, the higher the reliability of the construct is (Garson 2016). However, the satisfactory level for composite reliability is above 0.7 (Hair et al. 2015, 447). In this research all the factors exceeded the satisfactory level as the values ranged from 0.922 to 0.972 (table 7).

TABLE 7 Factor loadings and *t*-values

FACTOR	COMPOSITE RELIABILITY	ITEM	STANDARDISED LOADINGS	<i>t</i> -VALUE
Offer quality	0.966	OFFER1	0.944	60.350
		OFFER2	0.948	54.714
(continues)				

Table 7 (continues)

		OFFER3	0.962	94.697
Delivery	0.922	DELIV1	0.881	44.943
		DELIV2	0.917	53.604
		DELIV3	0.881	27.088
Personal interaction	0.960	INTERAC1	0.945	67.702
		INTERAC2	0.932	54.787
		INTERAC3	0.950	78.289
Service support	0.963	SUPPORT1	0.958	95.407
		SUPPORT2	0.941	54.377
		SUPPORT3	0.943	73.068
Supplier's know-how	0.972	KNOWH1	0.942	74.633
		KNOWH2	0.966	134.400
		KNOWH3	0.971	107.341
Price/value for money	0.945	PRICE1	0.911	49.692
		PRICE2	0.937	73.213
		PRICE3	0.919	67.366
Acquisition costs	0.942	ACQCOSTS1	0.906	10.478
		ACQCOSTS2	0.949	11.722
		ACQCOSTS3	0.900	9.553
Operation costs	0.952	OPERCOSTS1	0.953	25.285
		OPERCOSTS2	0.920	14.696
		OPERCOSTS3	0.921	15.478
Customer perceived value	0.969	VALUE1	0.940	71.000
		VALUE2	0.955	104.986
		VALUE3	0.932	70.512
		VALUE4	0.940	74.532
Customer satisfaction	0.936	SAT1	0.928	48.009
		SAT2	0.935	49.782
		SAT3	0.870	14.195

The next step was to measure the average variance shared between research's construct and its indicators, i.e. convergent validity, by examining the average variance extracted (AVE). If AVE values are less than 0.5, it indicates that the validity of individual indicators and constructs fails (Garson 2016). In addition, AVE of a construct should exceed the square of its correlation with any other construct, as it shows that discriminant validity is evidenced (Hair et al. 2015, 448). In this research both AVE values and the squared AVE values of constructs achieved the accepted level (table 8) and therefore the discriminant validity is proven to exist.

TABLE 8 Average Variance Extracted (AVE), construct correlations, square roots of AVE (on the diagonal), means and standard deviations

	AVE	1	2	3	4	5	6	7	8	9	10	11	12	13
ACQCOSTS (1)	0.844	0.919												
COUNTRY (2)	n/a	-0.110	n/a											
VALUE (3)	0.957	-0.192	0.015	0.942										
SAT (4)	0.898	-0.141	-0.017	0.743	0.912									
DELIV (5)	0.874	-0.156	-0.030	0.672	0.735	0.893								
PRICE (6)	0.912	-0.096	-0.002	0.768	0.663	0.565	0.922							
INDUSTRY (7)	n/a	0.031	0.076	0.005	0.019	0.036	0.092	n/a						
JOB (8)	n/a	0.031	-0.124	0.184	0.153	0.155	0.111	0.026	n/a					
KNOWH (9)	0.957	-0.074	0.036	0.777	0.721	0.644	0.636	0.022	0.100	0.960				
OFFER (10)	0.948	-0.100	0.018	0.776	0.774	0.698	0.692	0.066	0.113	0.771	0.951			
OPERCOSTS (11)	0.925	0.638	0.033	-0.216	-0.113	-0.137	-0.109	0.018	0.050	-0.150	-0.112	0.931		
INTERAC (12)	0.937	-0.147	-0.065	0.664	0.844	0.726	0.581	0.035	0.188	0.644	0.673	-0.103	0.942	
SUPPORT (13)	0.942	-0.133	-0.015	0.714	0.809	0.679	0.661	0.011	0.192	0.696	0.782	-0.111	0.785	0.947
Mean	-	0.828	1.000	0.885	0.831	0.797	0.849	1.000	1.000	0.920	0.902	0.856	0.886	0.894
St Deviation	-	0.076	0.000	0.019	0.044	0.032	0.021	0.000	0.000	0.016	0.024	0.053	0.021	0.022

4.7 The structural model

The structural model, or inner model, concentrates on the estimation, direction and strength of the path linkages between different constructs (Hair et al. 2015, 453). In other words, structural model analysis offers estimation of the relationships between the model's constructs and therefore allows to test research hypotheses (Hair et al. 2015, 446).

First, direct effects were examined. To examine whether specified hypotheses are empirically supported, the sign and magnitude of the structural path coefficients were inspected. Path coefficients vary from 0 to +/-1. The closer the path coefficient value is to +1, the more positive the relationship is and the closer the value is to -1, the more negative the relationship is. Values close to 0 indicate weak relationship. (Garson 2016.) However, it is important to also address whether the path coefficients are statistically significant by examining the *t*-values by using bootstrapping. *T*-value should exceed value +/-1.645 in order to be statistically significant. (Hair et al. 2015, 449.)

Furthermore, the coefficient of determination (R^2 value) was used to measure the variance explained in the dependent variable by the independent variables (Hair et al. 2015, 449). In other words, R^2 value is used to measure model's predictive accuracy. R^2 value ranges from 0 to 1 and therefore larger R^2 value indicates a stronger relationship between the independent variables and the dependent measure (Hair et al. 2015, 390). In this research offer quality, delivery, personal interaction, service support, supplier's know-how, price/value for money, acquisition costs, operation costs, country, industry and organisational role explained 78.9% ($R^2=0.780$) of the variance of customer perceived value and customer perceived value explained 55.2% ($R^2=0.552$) of the variance of customer satisfaction. R^2 value results above the cut-offs 0.67, 0.33 and 0.19 are described to be substantial, moderate and weak respectively (Garson 2016). The direct effects and the coefficient of determination are presented in table 9 below.

TABLE 9 The direct effects and the coefficient of determination

	β
H1a: Offer quality → Customer perceived value	0.194*
H1b: Delivery → Customer perceived value	0.081 ns
H1c: Personal interaction → Customer perceived value	0.055 ns
H1d: Service support → Customer perceived value	-0.008 ns
H1e: Supplier's know-how → Customer perceived value	0.299***
H1f: Price/value for money → Customer perceived value	0.354***
H1g: Acquisition costs → Customer perceived value	-0.057 ns
H1h: Operation costs → Customer perceived value	-0.062 ns
H2: Customer perceived value → Customer satisfaction	0.743***
Country → Customer perceived value	0.016 ns
Industry → Customer perceived value	-0.052 ns
Organisational role → Customer perceived value	0.079*

(continues)

Table 9 (continues)

	R ²
Customer perceived value	0.780
Customer satisfaction	0.552

Notes: *** $p \leq 0.001$, ** $p \leq 0.01$; * $p \leq 0.05$; ns – not significant

Next, the hypotheses and structural path coefficients are analysed in a more detailed manner. The first hypothesis included eight sub-hypotheses (H1a-h).

H1a: Offer quality has a direct and positive effect on customer perceived value.

The above table (table 9) shows that, the first sub-hypothesis (H1a) considering the path coefficient between offer quality and customer perceived value was found to be statistically significant and therefore the suggested hypotheses is supported ($\beta=0.194$, $p \leq 0.05$, t -value=2.212).

H1b: Delivery has a direct and positive effect on customer perceived value.

The second sub-hypothesis (H1b) is not supported as the path coefficient between delivery and customer perceived value was found to be weak and the t -value did not exceed value 1.645 ($\beta=0.081$, ns, t -value=1.096).

H1c: Personal interaction has a direct and positive effect on customer perceived value.

The third sub-hypothesis (H1c) is not supported as the path coefficient between personal interaction and customer perceived value was found to be weak and the t -value did not exceed value 1.645 ($\beta=0.055$, ns, t -value=0.617).

H1d: Service support has a direct and positive effect on customer perceived value.

The fourth sub-hypothesis (H1d) considering the path coefficient between service support and customer perceived value was found to be weak and the t -value did not exceed value 1.645 and therefore the hypothesis is not supported ($\beta=-0.008$, ns, t -value=0.469).

H1e: Supplier's know-how has a direct and positive effect on customer perceived value.

The fifth sub-hypothesis (H1e) is supported as the path coefficient between supplier's know-how and customer perceived value was found to be statistically highly significant ($\beta=0.299$, $p \leq 0.01$, t -value=3.315).

H1f: Price/value for money has a direct and positive effect on customer perceived value.

The sixth sub-hypothesis (H1f) is supported as the path coefficient between price/value for money and customer perceived value was found to be statistically highly significant ($\beta=0.299$, $p \leq 0.01$, $t\text{-value}=3.315$).

H1g: Acquisition costs has a direct and negative effect on customer perceived value.

The seventh sub-hypothesis (H1g) is not supported as the path coefficient between acquisition costs and customer perceived value was found to be weak and the t -value did not exceed value -1.645 ($\beta=-0.057$, ns, $t\text{-value}=1.146$).

H1h: Operation costs has a direct and negative effect on customer perceived value.

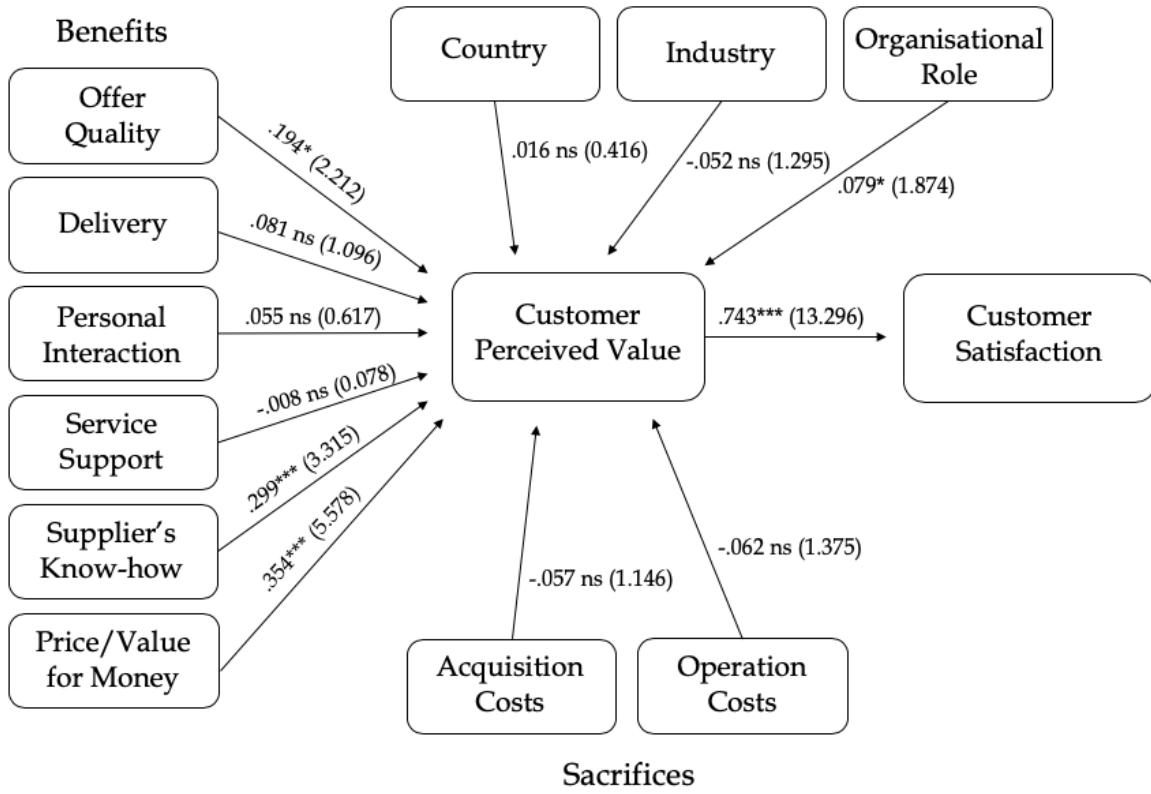
The eighth sub-hypothesis (H1h) is not supported as the path coefficient between operation costs and customer perceived value was found to be weak and the t -value did not exceed value -1.645 ($\beta=-0.062$, ns, $t\text{-value}=1.375$).

H2: Customer perceived value has a direct and positive effect on customer satisfaction.

The second hypothesis (H2) is supported as the path coefficient between customer perceived value and customer satisfaction was found to be statistically highly significant ($\beta=0.743$, $p \leq 0.01$, $t\text{-value}=13.296$).

Even though no separate hypotheses were not created on the potential relationship between respondent's country and customer perceived value (cultural effect), respondent's industry and customer perceived value and respondent's organisational role and customer perceived value, the research model included them as control variables. Both country and industry had no significant impact on customer perceived value, but regardless of the chi-square test results presented in chapter 4.3, it seems that organisational role has an influence on customer perceived value as the path coefficient between organisational role and customer perceived value is statistically significant ($\beta=0.079$, $p \leq 0.05$, $t\text{-value}=1.874$).

In summary, the research's results show that only offer quality, supplier's know-how, price/value for money and organisational role have an impact on customer perceived value. In addition, the results confirm that customer perceived value has an impact on customer satisfaction. The empirical model, the path coefficients and t -values are presented in the figure 5 below.



Notes: *** $p \leq 0.001$, ** $p \leq 0.01$; * $p \leq 0.05$; ns - not significant

FIGURE 5 The structural model.

5 CONCLUSIONS

The following chapter will present the empirical findings of this study and draw the theoretical contributions and managerial implications from the results in relation to the theoretical background. Additionally, research's reliability and validity will be evaluated in this chapter. Finally, the limitations of this research and possibilities for further research will be discussed in the end of this chapter.

5.1 Theoretical contributions

The main purpose of this study was to increase the knowledge of how customer perceived value is constructed in cross-cultural context. The topic is justified as previously presented theoretical background validates thoroughly how studying supplier's customers' perceived value can shed a light on what are the customers' perceived benefits and sacrifices related to the supplier company. Thus, having actual information on how perceived value is constructed in customers' minds can offer significant competitive advantage for supplier. Moreover, customer satisfaction and therefore repurchase intention, recommendation and inclination to search for alternatives are seen as descendants of customer perceived value, hence companies should aspire to get their customers' perceived value as high as possible. Furthermore, it is argued that culture differences have an effect on our trust, commitment and co-operation (Voldnes et al. 2012). Therefore, it is essential to know whether cultural differences influence perceptions of satisfaction and performance quality in business relationships (Lewin et al. 2010). Construct of customer perceived value has been previously studied especially in consumer market and some B2B contexts, but naturally every industry has its own nature and specifics.

The first research question was to find out the key value drivers of customer perceived value in B2B markets are. The results indicate that, even though all benefit drivers received high values from respondents, the only significant key benefit value drivers are supplier's offer quality, supplier's know-how and price/value for money. Ulaga and Eggert (2006b) define offer quality as the degree to which supplier's service or product meets customer's service/product related requirements. Reliability, performance and consistency over time are named as the typical main quality features of offer quality (Ulaga & Eggert 2006b). The results therefore indicate that Beamex's customers feel that the product and services Beamex offers meet their needs and expectations that the customers have towards their best service providers. Offer quality's significant role as a value driver in this case might be connected to the fact that Beamex's customers operate in the process instrumentation field, which is often highly regulated and requires high quality equipment. Therefore, the results of this study indicate that when companies, who operate on demanding and

regulated industries, are evaluating suppliers, supplier's offer quality has a big role in choosing the right supplier.

The second key benefit value driver, supplier's know-how, is most likely also connected to regulations of process instrumentation. According to Ulaga and Eggert (2006b), supplier's deep understanding of the supply market, previous experience with customer's operations and products and early participation with new product solution development are one of the key sources of value creation. Therefore, we can argue that our results confirm Ulaga and Eggert's (2006b) arguments as Beamex's customers feel that the know-how that Beamex offers for them brings them significant value. Furthermore, strong supplier's know-how can reinforce supplier's position, which in turn helps supplier to gain more information about client's operations and products and have better insight into customer's processes than any other supplier (Ulaga & Eggert 2006b). As highly regulated industries, such as pharmaceutical industry, require lot of knowledge from both customer companies and supplier, customers value if they can rely on supplier's knowledge of the customer's industry and its processes and requirements and also benefit from solution suggestions. As previously established, the relationships between Beamex and its customers are often long-term relationships. This interaction enables the possibility to Beamex to gain a lot of information about its customers' processes and therefore aid the customers with its know-how. In summary, the results in this study show clear support for previous literature concerning the supplier's know-how's significant role in value creation, especially when supplier-customer relationships are long and the fields of businesses where customer companies operate are complex.

The third significant key benefit value driver was called price/value for money and in this research context it meant the value that customers feel that they get from the product because of the reduction of its perceived short-term and long-term costs According to Sweeney and Soutar (2001), the quality and price component have different and differential effects on perceived value for money. Some customers feel that they obtain value for money when the price is low, and others feel that they receive value when there is balance between price and quality (Sweeney & Soutar 2001). In order to understand the survey results, it is important to acknowledge that Beamex's products are often times more expensive than competitor's equivalent product, so the result that some respondents of this study felt that Beamex products and services could be more reasonable priced was not a surprise. However, as the price/value for money is still significant value driver, we can thus draw the conclusion that even though some customers feel that the products could be more reasonable priced, the customers mostly feel that they receive high value for the higher price, i.e. there is balance between quality and price. Hence, the results of this research indicate that price does not always have to be low to create value for customer, but price/value for money can have significant impact on customer perceived value, if customers feel that there is balance between price and quality.

Moreover, the results of this study revealed that neither acquisitions costs nor operation costs were significant value drivers. This is a positive result as

Uлага and Eggert (2006b) argue that acquisition costs and operation costs have a negative impact on customer perceived value and therefore significant relationship can detract customer perceived value. As the results showed, Beamex customers feel that Beamex meets the promised delivery dates and the deliveries are often accurate. This can be one of the reasons, why customers do not feel that acquisition costs have significant negative impact as delivery failures are one of the negative drivers of acquisition costs. Moreover, offering warranty and warranty extension programs can be one way to supplier to diminish the negative impact of operation costs. As Beamex offers warranty for its products and customers have also option to buy warranty extension program, this might have an impact on why Beamex customers do not feel that operation costs have a significant effect on perceived value. Consequently, the results of this study support the previous literature by Uлага and Eggert (2006b) of how suppliers can diminish the negative effect of acquisition and operations costs.

The research results also confirmed the earlier assumption that customer perceived value has an effect on customer satisfaction. Consequently, this research agrees with Uлага and Eggert (2002), Wang et al. (2004), Blocker (2011) and Lam's et. al (2004) researches that customer satisfaction is influenced by customer perceived value and therefore improvement in value perceived by customer, increases customer's satisfaction towards supplier.

The second research question was to find out whether cultural differences affect customer's perception of value in B2B markets. Our research results indicate that customer's country does not have an impact on customers perceived value. In other words, even though cultural differences verifiably affect our way of thinking and behaviour, the cultural differences do not affect the way we perceive value in B2B relationships. The research result showed significant association between respondent's country and some of the survey questions, but the closer inspection reveals that the association is present presumably due to individual reasons rather than cultural differences. This notion is also supported when we inspect the countries who have answered similarly from Hofstede's cultural dimensions point of view. There are no significant similarities between the countries who gave the same respond and their dimensions. Thus, we cannot argue that similarities in culture-wise are the reason these respondents answered the way they answered. Moreover, the final path coefficient test eventually confirmed that respondent's country does not affect perceived value. The reason for the absence of cultural effect might be the fact that as business markets transform more and more globalised, the way companies perceive value becomes more unified. Thus, in line with Lapierre (2000) and Blocker's (2011) studies, the results of this study show clear support for previous literature that customer perceived value, as an overall perceived trade-off between benefits and sacrifices in relationships, is a culturally-transferrable construct.

Interestingly, the results gained from this research show support to argument that person's organisational role has an effect on customer perceived value. This argument was not considered as a hypothesis in our research and while value's subjective nature was acknowledged in theoretical background, its

impact was not highlighted in B2B relationships context. As the three most common respondents in our study were technicians/engineers, supervisors/maintenance managers and senior managements/executive managements, the results indicate that these three organisational role groups evaluate the same supplier's products, services and performance differently. For instance, technician/engineer might be more interested about product's functional features and therefore value high offer quality more than senior management/executive management whereas senior management/executive management might value more low acquisition costs than technician/engineer. Consequently, the results of this research are in line with Eggert and Ulaga (2002) and Sweeney and Soutar's (2001) argument that value is subjectively perceived construct.

5.2 Managerial implications

In addition to theoretical contributions, this research had also managerial implications to be presented. The managerial purpose of this study was to separate customer perceived value from customer satisfaction and to validate why they should be conceptualised and measured as two separate yet complementary concepts. By conducting customer surveys on customer perceived value, managers can have a closer insight on the construct of perceived value, i.e. their customers' key benefits and sacrifices, in their industry context. If the value propositions that the supplier communicates towards their potential and present customers do not align with customers' needs, customers may not consider supplier as a potential business partner. In other words, the value propositions do not speak to customers. Studying only customer satisfaction does not give managers the same kind of information as it only tells managers how present customers feel about the company's current offering. Therefore, as our research results confirmed that customer perceived value has an impact on customer satisfaction and high customer satisfaction is argued to lead to re-purchases, positive word-of-mouth and diminishing desire to change supplier, based on this research's results it is recommended that companies' customer data should include information about how satisfied customers are with supplier's current market offering, but also assessment of how value is perceived by customers in order to have information for marketing decision making.

Moreover, the managerial purpose of this study was to offer more insight of key value drivers by finding out how customer perceived value is constructed in researched B2B markets. Nowadays, in marketing communications, the supplier's offer quality is often marketed as a complete solution. However, while the emphasis should be still on the complete solution, the specific product features should not be dispelled too much into background. As the research results showed, offer quality is one of the key value drivers of customer perceived value and especially in complex and demanding industries, the quality of

products and services is one of the most important things. Therefore, highlighting the high offer quality should always be in managers' minds. However, it is important to managers to acknowledge, that if customers' main criterion is not high offer quality, offering superior quality can be effective way for a company to differentiate itself from the competition, but its role in that case would be limited.

The managers should keep the same advice in mind with supplier's know-how. As the result of this study showed, customer companies who operate in complex industries value significantly a supplier, who can offer them valuable know-how. Therefore, if supplier's customers operate in these kinds of industries, managers should highlight the know-how they can offer in their companies' value propositions. However, if the customers' industries are not complex, supplier's know-how might not have as much value significance as in this context.

Furthermore, the result offer for managers insight on how customers assess value for money. Even though the price of the product or service would be somewhat higher than competitors equivalent offer, price/value for money can bring significant value to customer, if there is balance between price and quality.

Additionally, our results indicate that customer perceived value construct is universal concept and therefore managers do not have to adapt their companies' value propositions according to cultural differences. Yet, our results indicate that different people perceive value differently according to their organisational role. Thus, managers should consider creating marketing material to different customer segments, so that the communicated value speaks to the person. Moreover, managers should keep in mind that people that are taking part in the purchasing process can have dissimilar perceptions of a supplier's value offering. Therefore, universal value propositions might not be as well received as value propositions that speak to different organisational role groups.

5.3 Reliability and validity of the research

In order to evaluate the quality of this research, the reliability and validity of the research are reviewed. The measurement model's reliability and validity were analysed using SmartPLS software.

If repeated application of a survey instrument produces consistent results, the survey instrument is considered reliable (Hair et al. 2015, 252). Therefore, the reliability of this research was improved by using measures which had already been tested in previously done researches and published in peer reviewed journals. The survey questionnaire used in this research can be found in the Appendix of this paper, so that other researcher can replicate this study, if they wish. Moreover, research's reliability was increased by documenting consistently the research process in order to repeat the research process in different period.

The inner reliability was assessed by using composite reliability values, as they are considered to be more accurate internal consistency reliability measurement (Hair et al. 2015, 255). In this research all the factors exceeded the satisfactory level (0.7) as the values ranged from 0.922 (DELIV) to 0.972 (KNOWH).

Validity of the research is the degree to which a construct measures what it is thought to measure (Hair et al. 2015, 257). Research validity is separated into internal validity and external validity. Internal validity refers to whether the observed effects on the test components could have been triggered by variables other than the treatment (Malhotra 2017, 311). The validity of the research was analysed by examining the average variance expected (AVE) and square roots of (AVE). In this research AVE values exceeded the accepted level (0.5). Moreover, the squared AVE values of constructs exceeded the level of AVE values and therefore the discriminant validity is proven to exist.

The external validity refers to whether the cause-and-effect relationship found in this research can be generalised. The generalisation of this research is limited as the research survey was sent only to one company's customers. Therefore, the results might have been different, if the collected data would have included several companies' customers. However, the validity of this study was improved by achieving as much survey respondents as possible. In total, 161 respondents took the survey, which can be considered as a good sample size.

5.4 Limitations of the research

As every research in general, also this research has its own limitations. First, according to Bryman and Bell (2011, 163), the purpose of quantitative research is to allow generalisation from a research sample to the whole population, which the sample represents. Therefore, the first limitation of this study concerns the generalisation of the results. As shortly mentioned in the previous chapter, the research data used in this research was collected by sending the survey invitation only to Beamex customers. Therefore, the results gained from this study might depend significantly on the studied industry.

Moreover, even though the survey invitation was sent over 9,000 customer contacts, in the end only 161 customers responded to the survey. In addition, in many cases there was only one respondent from a certain country. Hence, the generalisations of this research should be taken with caution, as in most researches.

Furthermore, when conducting an online survey, it is difficult to the researcher to know how the respondent has taken the survey, has the respondent been truthful or has the respondent misinterpreted some of the chosen questions. The collection of research data was attempted to control by sending the survey invitation only to actual Beamex customers, but with the online survey researcher can never be sure, who has answered the survey.

5.5 Future research

In this research, the customer survey was only sent to Beamex's customers who receive English marketing communications. Therefore, in the future it would be interesting to send the same survey to customers who receive German, Spanish and French marketing communication and see if the results on customer perceived value differ compared to current results. Furthermore, in this research customer perceived value was studied using quantitative research methods, thus qualitative research could be justified in order to understand better customers' reasons behind perceived key benefits and sacrifices. This could provide more managerial implications and information on how to best utilise knowledge gained from customer perceived value studies.

In addition, conducting the same study in different industry context would also help gain more information on customer perceived value. As this study was conducted in B2B electronics industry context, it would be interesting to compare results to another industry. Moreover, conducting the same study in same industry field, but within another company, could be interesting. That way results could give insight to whether customer perceived value is more a company specific concept than an industry specific concept.

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APPENDIX

APPENDIX 1. SURVEY QUESTIONNAIRE

Offer quality	
OFFER1	Exceeds our standards for quality products and services.
OFFER2	Consistently provides quality products and services to us over time.
OFFER3	Provides us with excellent quality products and services.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Personal interaction	
INTERAC1	Maintains excellent personal interaction with our people.
INTERAC2	Has built a very good working relationship with us.
INTERAC3	Is very easy to work with.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Service support	
SUPPORT1	Provides us with excellent support services.
SUPPORT2	Always gives us the appropriate information when we need it.
SUPPORT3	Gives us excellent support to deal with day-to-day issues.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Delivery	
DELIV1	Performs better in meeting delivery due dates.
DELIV2	We have less delivery errors.
DELIV3	Deliveries are more accurate (no missing or wrong parts).
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Supplier's know-how	
KNOWH1	Provides specialized expertise to help us in our industry.
KNOWH2	Uses their firm's know-how to help us drive innovation in our own business processes.
KNOWH3	Applies their firm's knowledge to help us improve our business processes.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Price/value for money	
PRICE1	Is reasonably priced.
PRICE2	Offers value for money.
PRICE3	Offers a good product for the price.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Acquisition costs	
ACQCOSTS1	Implementation costs to begin using the service your firm purchased.
ACQCOSTS2	Ordering costs to obtain the service.
ACQCOSTS3	Administrative costs to coordinate the initial set-up with this provider.
	<i>scale from 1 (costs are much lower) to 7 (costs are higher), 6 (don't know)</i>
Operation costs	
OPERCOSTS1	Ongoing operating costs to maintain the service.

OPERCOSTS2	Ongoing costs of monitoring provider performance.
OPERCOSTS3	Ongoing costs of coordinating communication between your firm and this provider.
	<i>scale from 1 (costs are much lower) to 7 (costs are higher), 6 (don't know)</i>
Customer perceived value	
VALUE1	Creates superior value for us when comparing all the costs versus benefits in the relationship.
VALUE2	Considering the costs of doing business with this service provider, we gain a lot in our overall relationship with them.
VALUE3	The benefits we gain in our relationship with this provider far outweigh the costs.
VALUE4	Our company gets significant customer value from this provider relationship.
	<i>scale from 1 (strongly disagree) to 7 (strongly agree)</i>
Customer satisfaction	
SAT1	In general, my company is very satisfied with the services offered by Beamex. *
SAT2	Overall, my company is very satisfied with its relationship with Beamex. *
SAT3	Overall, how satisfied is your company with Beamex? **
	<i>*scale from 1 (strongly disagree) to 7 (strongly agree), ** scale from 1 (extremely dissatisfied) to 7 (extremely satisfied)</i>