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**STRUCTURING PRODUCT VALUE CREATION AND DELIVERY  
PROCESSES TO DEVELOP QUALITY BUSINESS RELATIONSHIPS. Case  
study of metal processing machinery company from Finland**

Master's Thesis in  
Strategic Management

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**LIST OF ABBREVIATIONS**

ARA	actors, resources, activities
B2B	business-to-business
B2C	business-to-customer
IMP	Industrial Marketing and Purchasing Group
NC	numerical control
R&D	research and development
RQ	relationship quality
TCS	trust, commitment, satisfaction
VS	value system



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**ABSTRACT**

**Purpose** – in the era of common application of relationship marketing as a strategy to succeed in business-to-business markets, there is a tendency to neglect the proper management of business relationships and as a result – discontent with the prevailing cooperation routines. Thus, this paper is aimed on developing guiding principles to create and maintain successful buyer-seller relationships.

**Design/methodology/approach** – the paper is built upon linear-analytical structure with minor application of systemic combining approach in corresponding empirical findings to theoretical knowledge. Since qualitative data, collected through embedded single- and multiple-cases, embraces a comprehensive study of the product value phenomenon, methodology is concentrated on finding links between variables to reveal the control arms of business relationships. That is why data is interpreted in form of logic model based on within- and cross-case analysis.

**Findings** – A pledge of quality relationships lies in keeping constant contact between buyers and sellers through formal and informal communications, provision of sufficient service support as well as cooperation resulting in trust, commitment and satisfaction.

**Research limitations/implications** – the paper is limited in several dimension. First – the study takes place in clearly outlined time frames. Second – the research design limits methodological approaches to only corresponding tools. Finally, data collection sample is limited in number – 3 customer companies and geography – customer companies represent Finnish and Danish markets.

**Originality/value** – although the unit of analysis - business relationships, is a broad concept that may lead to fuzzy results, it has been studied as a phenomenon, with emphasis on causal relationships between the elements. This opens clear perspectives on what they consist of, how they emerge and develop, what activities are involved and most important – how to manage the relationships in a desired way.

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**KEYWORDS:** business relationships, product value, value drivers, quality of business relationships



## 1. INTRODUCTION

Introduction provides key insights of the research including justification of the study, explanation of the research problem and delimitations within which the study takes place. Starting from the general background of the main theories, it proceeds with specific description of research problem, pointing at certain gaps in the literature that motivate setting up the research. After that, the aim, research questions and research objectives that are considered through ought both theoretical and empirical parts, are presented. Scope of the study includes the related theories and approaches that help answering the research questions. Finally, structural consequence of the research steps will guide through the following chapters of the thesis.

### 1.1. Background of the research

Nowadays understanding business relationship lies at the heart of understanding business marketing (Ashnai et al., 2009). Relationships between buyers and sellers have always existed but have gained a significant interest by both theorists and practitioners when marketing traditions switched from transactional to relationship approach (Veloutsou et al. 2002). The first introduction of ‘business-to-business relationship marketing’ notion from theoretical perspective was published by Jackson (1985), where he describes it as a proper way to get closer to the customer. A great contribution to the development of industrial marketing management theory with relational emphasis has been provided by service marketing school (Grönroos, 2004) and Industrial Marketing and Purchasing (IMP) Group (Pettersen, 2001). According to Pels, Möller, & Saren (2009: 323), the focal point of investigations is mutually beneficial relationships between buyer and seller:

*“Understanding the dynamics of relationships and advocating mutually rewarding relationships, often invoking a marriage metaphor, became the core of the normative program of the Relationship School.”*

Constantly increasing interest in building successful relationships with customer, especially in industrial concept is twofold. First, it is explained by a variety of additional values that both buyers and sellers obtain in the process of long-term communications and cooperation (Grönroos, 2004). From customer perspective, benefits provide sense of trust, confidence in the supplier, reliability, decreased level of purchasing risks and eventually – client cost reduction. From product/service provider perspective, successful relations represent client retention, rational and emotional fidelity, customer loyalty etc. (Luigi & Mihai, 2000). Second, building relationships with customers is a complicated and challenging process (Jackson, 1985), which requires constant monitoring of value dynamics, adaptation in due course as new customer trends arise, that are all overlapped with quickly changing environment, technological development and competitor advance.

Nowadays adhering to relationship approach of building marketing strategies in industrial markets does not seem to be a novelty. This is rather a conventional norm of handling business customers' communication processes that many managers believe will provide prosperous development and increasing performance to their firm. However, it is also commonly noticed that many customers are not fully satisfied with some methods that their product/service providers undertake and even start complaining about obsessive redundant marketing messages. Unfortunately, the reason for that is hidden under a lack of understanding nature and complexity of business relations and neglecting their proper management. This topic created interest in digging into the research with the aim to understand the logic of communication system in industrial markets and develop successful business relationships.

## 1.2. Research problem

Current theoretical vast provides extended literature on relationships with consumers, but relationship on business level is less disclosed. Although a lot of work in this sphere has been already done, it still needs further qualification and elaboration. The majority of the existing studies aims at conveying importance of relationship marketing, its connection to firm performance, customer satisfaction, loyalty etc. It has been



established that relationship marketing is a strategy to go in today's business environment. However, the body of knowledge is weak to answer 'how' questions: how to best design it for implementation? How to implement the relationship marketing strategy effectively? How to define relational practices? Olkkonen et al. (2008) claim that on business-to-business markets the relationships with key customers is a necessary condition to survive rather than a sufficient condition to succeed. Based on the above-mentioned considerations, critical questions arise – is it possible to build a competitive relationship marketing strategy in network-like markets? Is it possible to distinguish between 'good' and 'bad' relationships? And eventually, how to develop quality business relationships that ensure the probability of continued exchange between buyers and sellers where both parties are pleased with the affairs (Woo & Ennew, 2004)?

Speaking of quality in business relationship, it is generally conceptualized as a higher-order construct composed of three primary dimensions including trust, commitment and satisfaction (TCS) (Ulaga & Eggert, 2006). Additionally, every relationship can be characterized by subsequent indicators of relationship quality. There are two problems associated with the relationship quality literature. First, it is concentrated mostly on the trust, commitment and satisfaction; however, these concepts indicate only the fact that prevailing relations are qualitative, but they do not define company actions that lead to gaining quality in buyer-seller relations. The antecedents of TCS or their building blocks have been neglected. The second problem refers definition of the role of subsequent indicators of relationship quality, because they are generally treated as secondary dimensions that have minor contribution to relationship quality construct. However, in fact they are the predecessors of TCS and thus – relationship quality concept. Speaking about the process of developing business relationships, it appears to be practically impossible to aim trust, commitment and satisfaction features without a proper scrutiny of their precursors. Apparently, secondary dimension of relationship quality or TCS predecessor are context specific, they can vary significantly from industry to industry and therefore, are difficult to determine promptly. Identification of complementary dimensions of relationship quality construct requires thorough study of particular relationships' background, diversity of actors, patterns of relationship development etc. Nevertheless, clarification of TCS predecessors is extremely important to answer "how to?" questions.

### 1.3. Research questions and objectives

Based on previous considerations, the aim of this paper is to overcome the gaps in the research by building the bridge between relationship quality and companies' intention to reach the feelings of trust, commitment and satisfaction from their customers as factors of relationship quality. In other words, the aim of the research is to provide a sufficient explanation answering the question "how to develop quality business relationships" on the example of a Finnish company in metal processing machinery industry that would serve as an applicable plan of actions for the case company and would contribute to strategic business management theoretical knowledge.

One of the central concepts of relationship marketing, especially in business context, is product value (Tzokas & Saren 1999; Mandják & Durrieu 2000; Walter et al. 2000; Veloutsou et al. 2002; Eggert et al. 2006; Arslanagic-Kalajdzic & Zabkar 2015). Creating superior product value to customers is a key to company's long-term survival and a pledge of success in business relationships (Eggert et al., 2006). However, the notion of product value is a complicated phenomenon; it needs a comprehensive approach to understand the structure, constructing elements, conditions in which value creation is organized, different roles by different actors who participate in the process of value creation etc.

Although product value embraces an extensive area of research with various concepts and processes under it, the intent is to study it as a system and define causal relations within the system and connections with customers' perception of delivered values. In this paper, product value theory serves as a material to build the assumed bridge, the material that constitutes companies' actions on the way to successful buyer-seller relationships. The challenge consists in placing these actions in the right order, in undertaking a certain logic behind to achieve the intended results as efficiently and as fast as possible. The research questions of the research is composed as follows:

*RQ: How a company should organize a fruitful product value creation and delivery processes that enable development of quality buyer-seller relationships?*

In order to make the research process more clear, several objectives have been constituted on the way to answering the research question.

Since investigation takes place in frames of a certain industry, the first objective deals with describing defining characteristics of product value creation and organization of delivery processes within customer companies.

***RO 1. Define the activities:*** to study and to analyze existing and desired value drivers in prevailing relationships between Prima Power and its customers.

Given the set of product value related activities, the next step lies in categorizing them into groups of influence with the aim to follow cause-effect chains within the activities. This procedure will eventually lead to linking the formed groups of activities to targeted indicators of relationship quality – trust, commitment and satisfaction.

***RO 2. Link the activities:*** to reveal predecessors of trust, commitment and satisfaction concepts by analyzing customer behavior, preferences and perceptions.

The final task is to merge combined results into a single structure und explain why certain activities have been assigned to corresponding categories and how they contribute to each of three initial dimensions of relationship quality.

***RO 3. Structure the value system:*** to justify the role of secondary dimensions of relationship quality as predecessors and qualifiers of trust, commitment and satisfaction constructs.

#### 1.4. Scope of the research

Taking into consideration the requirements of a Master's Thesis, this paper is limited to certain time frames and a vast of theories. First, relationships between buyers and sellers are studied only on Finnish business-to-business level what means that the results of the study may not be applicable to companies operating on overseas markets or on

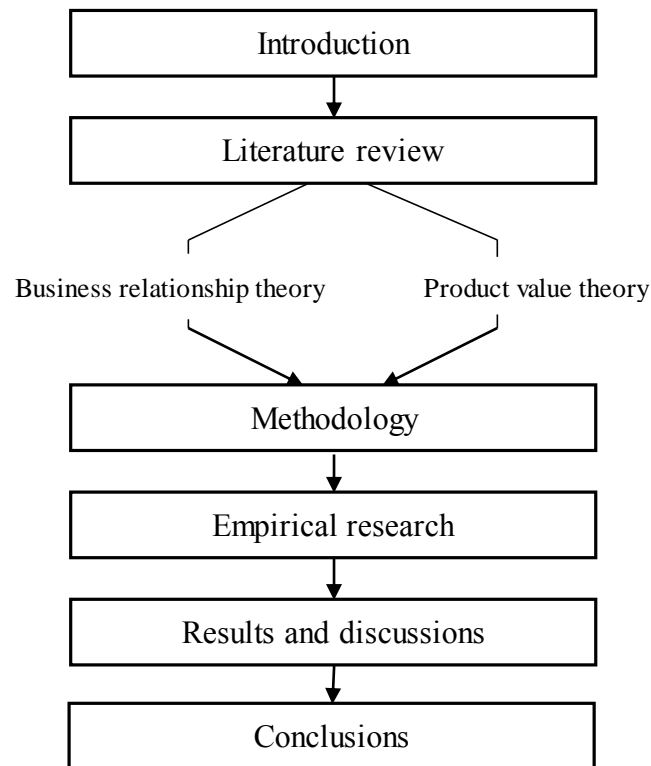
business-to-customer markets. Conceptual framework is based on the knowledge from business relationships theory on one hand, because it represents the unit of analysis of this paper. On the other hand – product value theory as a constituting body of developing business relationships. Since this paper implies that product value concept serves as the main instrument of creating successful business relationships, the concept has to be studied comprehensively. That is why literature review concentrated on full analysis of product value phenomenon including its nature, constituting elements, development patterns etc. In academic world, researches commonly choose to study one element of the concept and link it to some external factors which results in a lack of a single comprehensive explanation of product value concept. For that reason, foundation of product-value literature review in this paper roots to various studies and contexts.

Empirical investigation is limited in different dimensions. Since it is completed on an example of a Finnish company in industrial sector, practical implications may not correspond to other companies on similar markets that are characterized by different cultural, political and economic conditions and customer base. Second, the study takes place at a certain point of time, which means that validity of the findings has a tendency to decrease in course of time. What is more, since structure of the market or customer base changes significantly, the results of the research may not be applicable to new arising conditions any more.

### 1.5. Structure of the research

The research is built upon linear-analytic structure, which implies gradual transition from exploration of theory to identification of research questions based on gaps in theoretical knowledge with further empirical testing of theoretical findings. According to this structure (figure 1), the research starts with searching through background literature to gain understanding of the topic and to define gaps in the research that need to be revealed in order to better understand the topic. This stage is characterized by finding related journals that are specialized on the area of the research topic. After finding the problems in the research, the aim, research questions and research objectives that guide through the paper are formulated and explained. When the topic has need defined, the efforts concentrate on

finding specialized articles in chosen sources of literature that reveal clearly defined topics. These topics compose findings that contribute to answering the research questions. Thus, theoretical part is built upon knowledge base of two milestones: business relationship as a marketing approach in industrial markets and theory of product value creation in business relationships.



**Figure 1.** Structure of the research.

Speaking of business relationship theory, it covers such dimensions as understanding the nature of relationships, communications with customer on different levels of relationships that indicate endurance of cooperation and variety of transactions experienced, critical aspects of business relationship management as well as exploration of relationship quality notion and its constituent elements. On behalf of product value theory, the research expands significantly with the aim to provide a comprehensive analysis and identify specific value creation characteristics that contribute to gaining higher order dimensions of relationship quality, namely trust, commitment and satisfaction. The following constituent elements of product value concept are studied in detail in frames of the literature review. First, the nature of product value phenomenon and constructing elements. Second, value drivers (different sources provide different

names such as attributes, determinants, performance drivers, action variable (Wimmer & Mandják, 2002). Third, common ground for both theories was identified and conclusions were made.

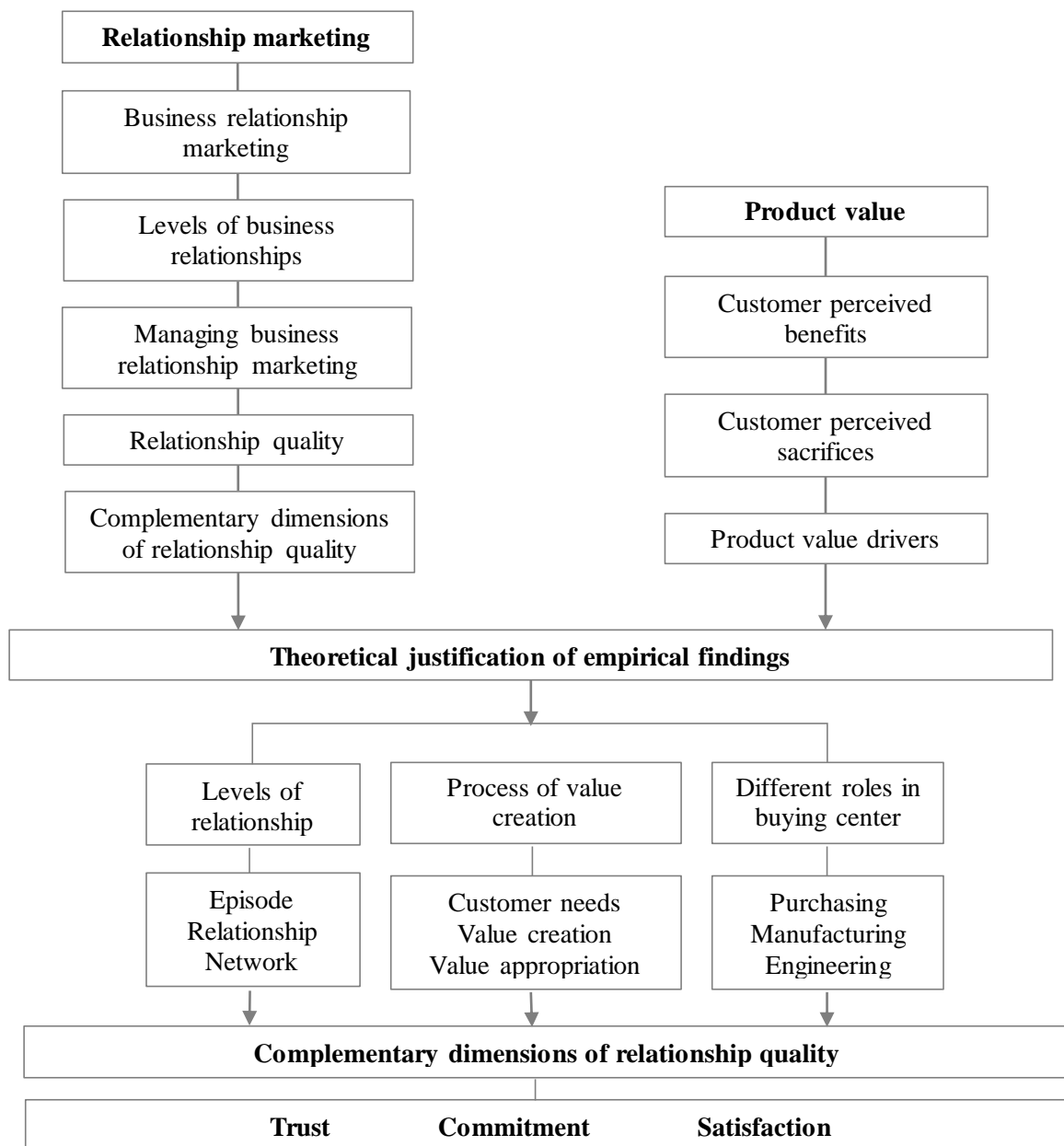
The paper proceeds with explaining methodology for further exploration of theoretical findings practically. Methodology also explains logic of building theoretical study and how it explains the need for empirical study. After that strategy of completing practical investigation of research question is described including time horizon, chosen research methods, sources of data collection and data analysis.

Empirical part itself represents a case study – an investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (Saunders, Lewis, & Thornhill, 2009). The choice of the method is explained by importance of context and diffused boundaries of the studied phenomenon. Moreover, this approach helps to explain causal relations between variables, which are critically important to answer research questions of this paper.

Chapter 5 explains the results of the issue investigation in practical world and discusses related topics. The paper is finished by conclusions part including theoretical and practical implications and ideas for future research.

## 2. LITERATURE REVIEW

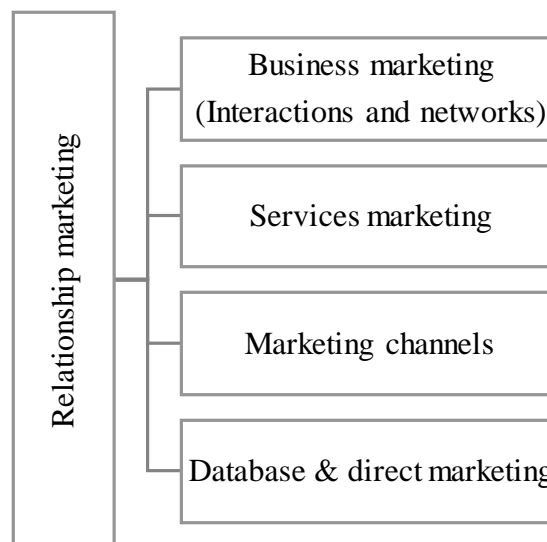
The outline of the theoretical literature review is presented on figure 2. The research starts with relationship marketing theory and proceeds with product value theory. Stratification of the findings from these milestone theories indicate the core idea of value system utilization: *Process of product value creation and delivery to different roles in buying center during the evolution of business relationships at the origins of business relationship quality.*



**Figure 2.** Outline of the theoretical study.

## 2.1 Relationship marketing theory

Relationship marketing is not a new phenomenon; its roots go as far as the beginning of any trade relationships (Möller & Halinen, 2000). In course of time, the notion had acquired theoretical justification and thus – establishment in the present body of knowledge. The idea of relationship marketing encompasses establishing, maintaining and enhancing relationships with customers by a mutual exchange and fulfillment of promises (Ravald & Grönroos, 1996). Relationship strategies have been implied in different industries and on different levels of marketing. Möller & Halinen (2000) provide four roots of relationship marketing (figure 3).



**Figure 3.** Roots of relationship marketing.

The major differentiating factor between various types of relationship is the level of interdependence between buyer and seller (Möller & Halinen, 2000). According to this, two primary categories of relationship marketing can be identified: producer-consumer (B2C) and inter organizational (B2B) relationships. In this paper, the unit of analysis is business relationship marketing.

### 2.1.1. Business relationship marketing

Business relationship marketing encompass relations between companies, individuals and different types of organizations. Business relationship theory is aimed on



understanding the following key questions: “How to explain exchange behavior and as a result - relationship development?”, “How do networks of relationships evolve?” and “How do markets emerge and develop from network perspective?” (Pels et al., 2009). Attractiveness of business relationship lies in extra benefits that both parties receive besides products and/or services. Thus, over time, partners gain trust and security, minimize risks and even reduce costs of being a customer/supplier (Grönroos, 2004). For that reason, all actors are active, resulting in a high level of interdependence (Möller & Halinen, 2000). Resources can represent a unit of exchange what gives business relationships functions of accessing, controlling as well as creating new resources. What is more, resource heterogeneity makes substitution difficult and thus relationships – long-lasting (Pels et al., 2009). Key notions include resource ties, actor bonds, activity chains, interaction routines, relationship dynamics, networks, network dynamics etc. (Möller & Halinen, 2000: 42; Veludo, Macbeth, & Purchase, 2006: 200).

The before mentioned characteristics indicate that business relationships is a complex and generalized phenomenon by its nature (Schurr, 2012). Effective management of business relationship requires its further understanding and sorting.

### 2.1.2. ARA Model

The content of the relationship construct can be described by outcomes of the interaction processes within actor bonds, activity links and resource ties (Ford, Gadde, Håkansson, Snehota, & Waluszewski, 2008). This system has been refined in Actor-Activities-Resources model (ARA model), which has become a strong tool to understand business relationship phenomenon by both students, practitioners and researches (Axelsson, 2010: 14).

**The Actor Layer** represent individuals who develop interpersonal bonds in the process of interactions. Based on their experience, trust in other actors and perception characteristics, they use available opportunities to take the most advantages of these interactions (Håkansson, Havila, & Pedersen, 1999).

**The Activity layer** relates to various activities that evolve during interactions between actors. They include manufacturing, logistics, legislation, deliveries, information distribution, etc. Systemic integration of activities between companies leads to tight links, which in their term, affect the involved actors (Ford et al., 2008).

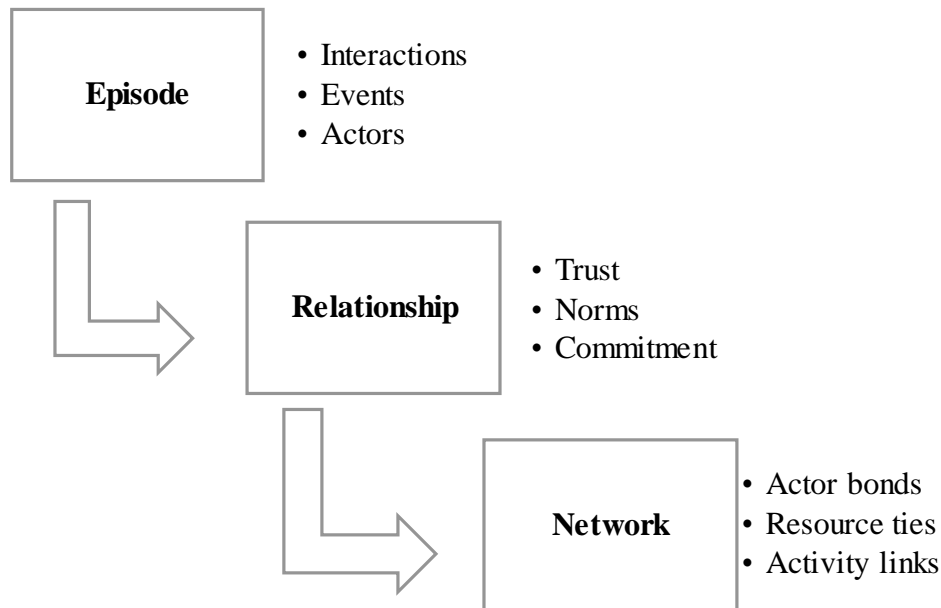
**The Resource Layer.** In order to perform activities, actors utilize available resources that are tightening together during interactions processes. The resources can be either tangible, like manufacturing equipment or intangible, like knowledge and experience. Initially confront resources evolve into resource ties as actors mutually adapt their capital over time (Ford et al., 2008: 89). The importance if resource adaptation lies not only in their efficient usage, but also in a possibility to create new resources during cooperation.

As it was mentioned in the beginning of the chapter, all three layers of the ARA model are interconnected and most importantly – they depend on each other. However, it does not necessarily mean that interactions between the layers always stimulate the activities, they can also be limited by certain circumstances. For example, actors can limit activity link to some companies in favor of other companies that appear to be strategically more attractive. Similarly, resource ties can either stimulate activity links between concerned actors or restrict them to unpromising opportunities. These and other different scenarios are steadily defined by actors' perception of existing opportunities.

### 2.1.3. Levels of business relationships

There is no tandard state of relationships, they vary in their structure, frequency, object of exchange and how each party perceives the values and communications in general. Although every business relationship develop in different way, they are all embedded in their atmosphere and comprise a part of the environment where interactive exchange actions take place (Håkansson, 1984). What is more, business relationships can be described by their development stages and levels of relationships (Mandják & Durrieu, 2000). Development stages, which define whether actors will engage in relationship or not, include, for example, pre-relationship, exploratory, developing and stable phases

(Ford 1980). Levels of relationships comprise episode, relationship and network – consistent and interconnected levels (figure 4) (Mandják & Durrieu, 2000).



**Figure 4.** Levels of business relations (adapted from: Schurr, Hedaa, & Geersbro, 2008).

#### 2.1.3.1 Episode level

An episode level is defined as an event of interaction, which has a clear starting point, ending point and represents a complete exchange (Ravald & Grönroos, 1996). In an episode there can exist several interactions that are usually short-term, dynamic and are associated with adaptation between firms (Schurr, 2012). The goal of interaction on this level is to fulfill customer needs and expectations as they define the likelihood of exchange episodes continuity and the overall level of satisfaction (Mishra, 2000). The risks associated with episode exchange concerns different perception of interaction outcomes. Different actors can evaluate the same conditions in different ways. Thus, an individual episode can have positive, negative or neutral estimation with the appropriate impact on further relationships. That is why some authors treat interactions episodes as building blocks of business relationships (Schurr et al., 2008). Some of the relations are critical because they can significantly change further development of relations.

### 2.1.3.2. Relationship level

Relationships evolve because of positive experience on episode level what stimulates repurchasing activities and so – builds relationships. On this level interactions are characterized by safety, credibility, and security which build trust between buyer and seller (Mandják & Durrieu, 2000). Interaction is a more generalized concept that is characterized by enhanced mutual adaptation, close distance between actors and increasing commitment (Fernandes & Proença, 2005). The core concept and the strongest governance mechanism of any business relationships is trust. First, it motivates actors to invest in long-term relations instead of short-term. Second, actors feel reduced level of risk and third, trust leads to cooperative behavior from both buyer and seller. The most widely accepted notion of trust refers a feeling of confidence in exchange partner's reliability (Morgan & Hunt, 1994).

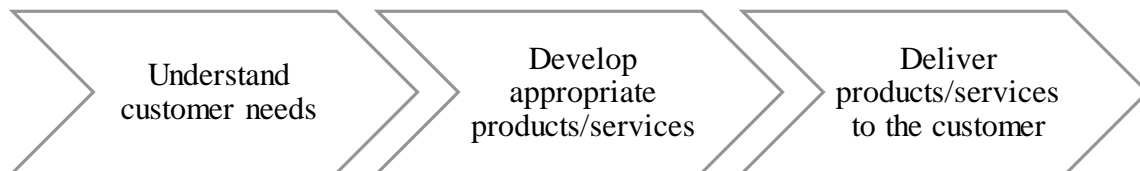
### 2.1.3.3. Network level

Finally, network level represent a set of independent firms that work together closely to manage the flow of goods and services along the whole value-added chain (Mandják & Durrieu, 2000). Networks arise because of repeated exchange actions within interconnected dyads. Over time the number of connections between different actors such as customers, regulatory authorities, strategic alliances and even competitors, increases. This results in establishing a network. However, it is important to understand that every separate actor is embedded in his own network, forming in such a way extended networks (Biggemann & Buttle, 2007). This makes it difficult to analyze and draw any boundaries of a network as such. However, in buyer-seller perspective, network-like relations are characterized by numerous benefits, including collaborative closeness, operational excellence, standardization of operations and transferability & complementarity of resources (Mandják & Durrieu, 2000). In another research, authors name the relations on network level as partnering, which implies such characteristics as trust, win-win outcomes, long-term orientation, co-ordination, problem solving and flexibility (Veludo, Macbeth, & Purchase, 2006: 200). To better understand relationships in network context, it is important to consider embeddedness of activities in production, recourse and social dimensions (Anderson, Hskansson, & Johanson,

1994: 308) that represent three cornerstones of ARA model: actor bonds, resource ties and activity links (Hakansson, Snehota, 1995).

#### 2.1.4. Business relationship marketing management

Given the introduction of business relationships nature, sources and construct, the problem of their management arises. As it is known, managing business relationships is a function of marketing department of a firm. However, unlike in consumer case, in firm operating on business-to-business markets, it is difficult to draw outlines of marketing function. Indeed, marketing is not a function of its own, it rather becomes a part of many functions, it is instilled in the organization (Grönroos, 2004). Does it make managing marketing objectives more difficult? It is different. In managing business relationship, the main focus of activity is concentrated around the customer, his needs and his individual perception of received values. Thus, the formula of successful relationship marketing management is represented in a simple consequence of actions (figure 5)



**Figure 5.** Customer value creation (Jalkala, Anne, Keränen, 2013).

In nowadays dynamic world customers have a possibility to choose between a tremendous number of suppliers, every one of which claims to provide high-quality, high-performance, novelty etc. of their product. Thus, in order to attract customers they need to provide additional benefits, deeper level of understanding customer needs and ability to provide unique solutions developed and created exactly according to specific conditions and needs. Thus, understanding customer needs is a starting point of building business in prevailing conditions. Depending on the sphere of operation, a firm can develop standard products or propose individual solutions ensuring customer's interest and desire to start buyer-seller relations. With the aim to keep them long-lasting and

mutually beneficial, the values delivery action requires as high standards as the product/service. These practices have led to emergence of networks-like markets where alliance building and resource sharing relations are treated as an indicator of success (Coviello, Brodie, Danaher, & Johnston, 2002).

However, building and maintaining cooperative interaction strategies is a common practice in network society. Some authors even came the conclusion that the relationships with key customers is a necessary condition to survive rather than a sufficient condition to succeed (Olkkonen et al., 2008). In other words, it means that being in relations with key customers as a fact is not enough to overcome competition; it is a complicated system that needs proper planning, building and continuous management. Recent literature have provided the notion of overall assessment of relationship conditions - relationship quality.

#### 2.1.5. Relationship quality

If somebody would be interested whether there can be good or bad relationships and how to distinguish between them, there exists an established construct of relationship quality as a general measure or the strength or closeness of relationships (Brun, Rajaobelina, & Line, 2013). The notion has been defined by many researchers as a higher order construct consisting of distinct but connected various dimensions (Woo & Ennew, 2004; Ulaga & Eggert, 2006; Myhal, Kang, & Murphy, 2008; Song, Su, Liu, & Wang, 2012). Although many authors agree on trust, commitment and satisfaction as higher constructs, the whole set of dimensions is not yet clearly defined (Čater & Čater, 2010). Difficulties in stating relationship quality construct are associated with a wide variety of relationships across different markets and the nature of every relationship is context-specific (Woo & Ennew, 2004). That is why literature brings various complementary dimensions that are implied in certain frameworks (Table 1). It is important to remember that quality of business relationships is matter of constant monitoring, improvement and proper management. In other words, the fact of long-term relationship existence does not indicate the quality of these relations (Hutchinson, Wellington, Saad, & Cox, 2011).

**Table 1.** Dimensions of relationship quality (RQ).

RQ dimension	Trust	Commitment	Satisfaction	Conflict	Communication	Service quality	Customer orientation	Conflict	Opportunism	Cooperation	Adaptation	Atmosphere	Mutual goals	Power	Profit	Bonds	Coordination	Interdependence
	Author																	
Kuruzovich, Han, Koukova, & Ravichandran, (2013)	■	■	■			■												
Myhal, Kang, & Murphy, (2008b)	■	■	■	■	■													
Ulag & Eggert, (2006)	■	■	■															
Rauyruen & Miller, (2006)	■	■	■			■	■	■	■									
Čater & Čater, (2010)	■	■	■															
Brun et al., (2013)	■	■	■															
Storbacka, Strandvik, & Grönroos, (1994)		■	■			■												
Song et al., (2012)									■	■	■							
Storbacka et al., (1994)			■			■												
Ulag & Eggert, (2006)	■	■	■															
Lages, Lages, & Lages, (2005)			■		■		■											
Woo & Ennew, (2004)	■	■	■		■					■	■	■		■	■	■		
Naude & Buttle, (2000)	■		■											■	■		■	
Hutchinson et al., (2011)	■	■	■	■	■					■				■			■	■

Instead, a sense of trust and reliability as well as confidence in the future performance based on satisfactory previous experience in exchange negotiations is an example of quality relationships between buyer and seller.

Based on the existing theoretical findings, this paper concentrated on trust, commitment and satisfaction as higher order constructs of business relationship quality. Considering the difficulty of choosing complementary dimensions due to their extended variety, they will be identified during the research corresponding to prevailing conditions.

#### 2.1.5.1. Trust

One of the most necessary requirement of business relationships is trust which many authors name as a fundamentals cornerstone of co-operation (Ashnai et al., 2009) and relate it to different benefits such as customer loyalty (Rauyruen & Miller, 2006), safety (Ulaga & Eggert, 2006), determinant of sound business relationship (Ashnai et al., 2009) etc. The most frequent reference in defining the notion of trust refers confidence in partner's reliability. Thus, according to Rauyruen & Miller (2006), trust in buyer-seller relations is "firm's belief that another company will perform actions that will result in positive outcomes, and that the other company will not take unexpected actions that result in negative outcomes for the firm". Čater & Čater (2010) define trust as "the extent to which a firm believes that its exchange partner is honest and/or benevolent". Similarly, Ulaga & Eggert (2006) claim that trust is "a willingness to rely on an exchange partner in whom it has confidence". Studies of trust in industrial contexts distinguish two dimensions: credibility and benevolence. Credibility focuses on an expectancy that the partner's word or written statement can be relied on; benevolence, in its turn, means interest of one partner in other's welfare and motivation to seek joint gains (Ulaga & Eggert, 2006).

Based on the previous notions, it is possible to assume that availability of trust relates directly to commitment. In other words, trust is a predecessor of partners' willingness to cooperate and build relationships. To prove this, a study by Čater & Čater (2010) concludes that social dimension of business relationships as trust contributes to gaining commitment more than other factors like knowledge transfer or adaptation. As stated by



Caceres & Paparoidamis (2007), trust is a major determinant of relationship commitment.

#### 2.1.5.2. Commitment

It has been argued that similar to trust, commitment is a vital ingredient of successful relationships and core dimension of relationship quality construct. It has gained such a high recognition because numerous studies have proved the links between commitment and customer loyalty, positive word-of-mouth communications, regular exchange episodes and future purchase intentions (Rauyruen & Miller, 2006). Commitment is typically explained as willingness of both partners to stay in relationships. Brun et al., (2013) explain commitment as “the consumer’s psychological attachment toward the online service provider, along with his/her willingness to maintain the customer-firm relationship”. Representatives of the IMP group define the notion as “the extent to which the company is dedicated to the maintenance of a relationship with another company” (Robbe, 2012). In business-to-business literature, commitment serves as a pledge of relational continuity. Since researchers claim the commitment is a psychological sentiment (Rauyruen & Miller, 2006), it serves as a sort of motivation to maintain healthy long-lasting buyer-seller relations.

When customer is confident in his product/service provider and is interested in further cooperations, he is satisfied with the state of relationships. As a result of trust and commitment, customer satisfaction is a next consistent dimension of business relationship quality.

#### 2.1.5.3. Satisfaction

Satisfaction is a notion that refers to experience and is illustrated as a ratio of customer expectations to what he has received in the result of exchange episode. Confirmation or disconfirmation of the expected benefits provide satisfaction or dissatisfaction – a general assessment of relations from customer perspective. (Storbacka et.al., (1994) provide the following definition: “Satisfaction is customers’ cognitive and affective evaluation based on the personal experience across all service episodes within the

relationship". Since this concept deals with positive past practices, researchers relate satisfaction to customer retention (Rauyruen, Miller, & Barrett, 2007). When it comes to customer retention management, it is important to understand ambiguous approaches to satisfaction nature. Thus, researchers distinguish between cognitive and effective dimensions (Ulaga & Eggert, 2006). Cognitive nature explains satisfaction as a comparison of perceived performance to standard accepted norms, while effective nature deals with individual assessment of received benefits what different people can treat in different ways. Both approaches seem to be relevant to understanding the concept of satisfaction, however, it is important to consider different antecedents and consequences accordingly.

#### 2.1.6. Complementary dimensions of relationship quality

According to IMP group interaction model (Håkansson, 1984) cooperation between two parties takes place in a certain environment of four basic levels that that describe and influence the interaction between buying and selling companies:

1. The interaction process.
2. The participants in the interaction process
3. The environment within which interaction takes place
4. The atmosphere affecting and affected by the interaction (Hakansson 1982).

All of the four components are interrelated and in certain way contribute to develop relationships. Thus, environment conditions influence single interactions and their outcomes build the atmosphere and vice versa. This indicated that business transactions do not exist in isolation and cannot be understood if taken as individual events (Song et al., 2012). For that reason, besides initial trust, commitment and satisfaction, every relationship needs individual examination of additional relevant factors that comprise relationship quality.

##### 2.1.6.1. Communications

Communications play very important role in business relationships (Lages et al., 2005). Surprisingly, but difficulties in communication compose a main source of problems between parties. There is a big difference between communication and information

sharing, although they sound similar. Communications is a bilateral way of information exchange, which is followed by shared understanding of the content of every message (Lages et al., 2005). According to Bleeke and Ernst (1993: 14), “even the most carefully designed relationships will crumble without good, frequent communications”. There is a notion of communication quality in business relationship literature, which implies existence of permanent contact of both formal and informal nature in buyer-seller dyad (Lages et al., 2005: 1045). Myhal, Buttle, & Murphy (2001) prove that communications is an intrinsic element of relationship quality construct, operating by relative empirical evidence.

#### 2.1.6.2. Service quality.

Quality of the provided services contains strategic importance in business-to-business context. Storbacka et al., (1994: 24) claims that service quality is a predecessor of relationship strength, which is expressed by trust in the supplier. The study confirms direct connection between service quality and customer confidence that consequently motivates relationship health and longevity. Theoretical body of knowledge offer four schools that conceptualize service quality notion as an indicator of relationship quality. Early attempts to formulate the service quality notion were made by a famous representative of Nordic School - Christian Grönroos. The model implies three constituting elements that shape the relationship quality. They include technical side of service product, functional side of service delivery and service environment (Chumpitaz & Paparoidamis, 2004). In other words, the Nordic Model is aimed on answering the questions: “What does the customer receives?” and “How the processes are organized?” Service quality is evaluated by comparing perceived values to expected ones.

In Parasuraman’s (1986) opinion, the Nordic Model was not sterling enough to measure the service quality. He proposed an improvement to the Grönroos’s model by adding different dimensions of service quality. Thus, the new model, which is called SERVQUAL, was based on the initial perceive-expect paradigm, but the gap between expectations and reality is related to five different dimensions: reliability, responsiveness, assurances, empathy, and tangibility. Although some authors criticize

this model to be irrelevant in some conditions (Dabholkar, 1996), it still remains one of the most acceptable by researches (Ghotbabadi, Baharun, & Feitz, 2012: 6).

In any case, service quality, as an indicator of trust in the supplier, is a useful tool to observe clients' behaviors, needs, wants and perception characteristics. By keeping high-level service quality, a firm can contribute to customer happiness with the provider, relationship quality and the overall performance of the firm.

#### 2.1.6.3. Cooperation.

Since any firm does not act in isolation, there is a need to deal with dependence on external resources or people. Referring to the ARA model interactions, activities performed by joint efforts, allow efficient use of existing resources, faster achievement of goals as well as access to new opportunities for the future. Thus, (Song et al., 2012: 290) define that "all activities undertaken jointly that direct towards common interests or achieving rewards represent *cooperation*."

In the context of business relations, cooperation implies pursuing common or mutual goals, aimed besides others on developing and maintaining existing relations (Woo & Ennew, 2004: 1257). For example, such characteristics as: reciprocity, joint problem solving, cooperative changes, united investments, etc., can describe cooperation between business partners (Håkansson, 1984). Taking into consideration the fact that cooperation is based on interaction between people, it is important to remember sentiments and behavioral elements. This implies that cooperation is possible as long as the relationships are characterized by a high level of trust and commitment between both sides (Woo & Ennew, 2004). Apparently, it means that cooperation is a guaranteed indicator of commitment in business relations.

#### 2.1.7. Summary

Conceptualization of theoretical findings designate that managing business relationships towards high-quality system is a complicated multistage process that requires continuous monitoring of customer behavior and adjusting firm's marketing activities

accordingly. It has been discovered that nearly every customer needs a unique approach to manage the relations. By studying the components that constitute high-quality business relationships, it becomes clear what a firm should do to implement them into reality. If we divide customer base into three groups according to the relationship experience, every group will value certain characteristics more than others (Figure 6). Thus, for the episode level representatives, a beneficial offer that is more competitive comparing to other suppliers will ensure customers' willingness to purchase and experience advantages. For the firms that are involved in relationships, the seller should establish itself as a reliable, highly committed provider, able to offer sufficient service quality and satisfy all the needs of its customers. Later on, when actors build the network around the relations, a supplier firm should try to involve the partners into cooperative activities aimed on developing and maintaining the prevailing relationships.



**Figure 6.** Directions for developing quality buyer-seller relationships.

In recent decades, a shift towards building relationships as an approach to manage buyer-seller interactions is getting more common. However, not all relationships do require high involvement or long-term orientation. It is important to remember that developing and maintaining relationships requires certain costs. If a firm has thousands actors in the network, it does not mean that everybody without exception should be involved in close relations. Based on balance of interest and economic consequences, a supplier firm may decide which companies should become lifetime partners and which should stay on low level of interdependence (Gadde & Snehota, 2000). This paper is aimed on finding ways to develop long-lasting mutually beneficial relationships

between the case company Prima Power and its customers. Even if Prima Power does not strive to develop such relation with every customer, understanding of the relationship managing tools will help to choose the most appropriate strategy toward every particular customer.

## 2.2. Product value

Product value is a cornerstone of business relationships and a key to building successful long-lasting relationships. O’Cass & Ngo (2012) explain that value offering is a pledge of gaining competitive advantage because it can cover two different, yet important aspects of customer satisfaction: performance and relationship benefits. Customers estimate performance through product characteristics (quality, innovativeness, design, sustainability as well as delivery related benefits) and gain additional interest from relationship values (trust, responsiveness, loyalty, commitment). By attempting to combine both types of values, a firm is likely to yield a superior positional advantage (O’Cass & Ngo, 2012):

“In particular, firms need to understand customer expectations and transform these expectations into a bundle of value deliverables in the form of product advantage (product performance value) and relational advantage (relationship and co-creation value)”.

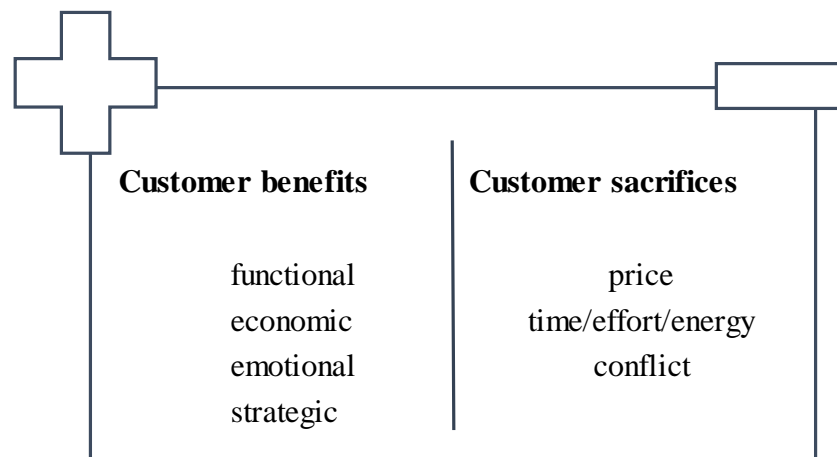
Value is multidisciplinary term having various approaches and backgrounds to description. That is why different authors tend to use different names of the same notion across scientific literature. Olaru, Purchase, & Peterson (2008) highlight 18 different names to the similarly-described notion. In this paper, the notion *product value* is chosen, because all of the variations are associated with the main product offering.

The concept of product value is generally defined as the ratio of individually perceived aggregate benefits to aggregate sacrifices made by the customer (Olaru et al., 2008). However, there are different explanations available in the literature. Table 2 contains the most explanatory examples:

**Table 2.** Definitions of product value.

Snoj, Korda, & Mumel, 2004	Product value is composed of all actors: qualitative and quantitative, objective and subjective that jointly form a customer's buying experience
Slater & Narver, 2000	Product value for a customer is created when the benefits a customer gets with a product are greater than the long-term costs a customer is expected to have with a product
Ulaga & Chacour, 2001	Perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer's firm in exchange for the price paid for product offering and taking it into consideration, the available alternative of supplier's offering and price
Robert B Woodruff, 1997	The customer's assessment of the value that has been created for them by a supplier given the trade-offs between all relevant benefits and sacrifices in a specific-use situation
Snoj et al., 2004	Product value to a customer is a comparison of tangible and intangible benefits from the generic as well as the supplementary levels of a product and total costs of production and usage of a product

Based on the above-mentioned definitions, it is possible to draw common characteristics of value concept. First, product value is a multi-dimensional construct. Second, it is often associated with perception what means a subjective individual evaluation of the utilities of the product and therefore, it can vary among customer. Different customers in different conditions may evaluate the received value in various ways. This makes conceptualization challenging and needs further detailed investigation of value constructs to be able to compose the wright set of values for particular customers. Finally, it is a concession of benefit to sacrifices experienced by customer. There can be various dimensions of benefits starting from positive communication episodes and finishing with increase of total firm performance. That is why benefits are often described as *total benefits* that contain certain subcategories such as functional, economic, emotional and strategic benefits. Total sacrifices are composed of money, time, energy and physical costs (figure 7) (Chen & Han, 2009).



**Figure 7.** Customer perceived benefit – sacrifice matrix.

### 2.2.1. Customer perceive benefits

As mentioned in previous chapters, value is a set of various benefits that in sum generate customer's opinion about received advantages in the result of exchange practices. Customers can obtain benefits in two ways: directly through functional and economic (tangible) values and indirectly through emotional and strategic functions (intangible values).

Functional benefits are associated with ability of the obtained product/service to solve existing problems by its innovativeness, quality standards, performance, power etc. Economic benefits emerge from the opportunity costs if alternative similar product is available (Prior, 2013). Emotional construct carries a vast majority of additional benefit starting from satisfaction with the purchase and finishing with social status identification. Strategic benefits, as explained by Wimmer & Mandják (2002), provide partners with opportunity to gain competitive advantage, force their core competencies or create market position. Prior (2013) also claims, "a considerable proportion of value is intangible". While the majority of researches concentrate on product value attributes, the power of intangible (or relationship) value is underestimated. However, value evaluation by customer is a continuous process lasting throughout the complex solution delivering process.



### 2.2.2. Customer perceive sacrifices:

Sacrifices requires a thoughtful attention because they tend to have stronger negative impact on value comparing to the positive impact of benefits (Ravald & Grönroos, 1996). Generally sacrifices include price, time/effort/energy and conflict. According to different authors, the most influential indicator of sacrifice can be price and related monetary expenses (Olaru et al., 2008) or time issues (Lapierre, 2000) because there are companies that count time as a more important asset than money.

An increase of any costs whether price or time leads to increase of customer sacrifices and eventually – to reduction of total perceived product value. However, in industrial markets, it is not always true. For example, price and conflict can have indirect positive influence in some conditions. It is generally believed that higher level of price means higher quality and performance of the product. Thus, by purchasing high-priced products/services, a company indirectly contributes to increasing its benefits from having a high-class product (Teas & Agarwal, 2000). Another example is described by Guenzi & Troilo (2006) in their empirical study which claim that conflict can be positive in business relations, because it may help to motivate people and get the most from each person involved into communication processes.

### 2.2.3. Product value drivers

Knowledge of customer needs stimulates creation and delivery of appropriate values, which is a fundamental construct of building successful business relationships. Companies want to ensure that customers perceive values to the same extent as companies design and create them. If it does not coincide, the seller should reconsider the approaches of value communication processes. With the aim to ensure maximum level of customer satisfaction with provided products/services, researchers identify certain drivers that positively influence customers' experience and hence, overall perception of delivered goods – product value drivers. Constant monitoring of factors that drive customer satisfaction should be an essential activity of every firm (Chakraborty, Srivastava, & Marshall, 2007).

Since business relations are long-term oriented, close and involve complex patterns of interactions (Håkansson, 1984), there is no doubt that value drivers is a multi-dimensional construct by its nature (Homburg & Rudolph, 2001). Thus, a proper structuring of value attributes needs a comprehensive approach as well. Across literature, authors have studied value drivers from different prospective. Table 3 presents findings in the area of value drivers investigation.

**Table 3.** Conceptualizations of value drivers.

<b>Author</b>	<b>Focus of study</b>	<b>Drivers of product value</b>
Möller & Tööröonen, (2000)	Indicators of Supplier's Value Production Capabilities Capability	Delivery Capability Incremental Innovation Capability Relational Capability Networking Capability Radical Innovation Capability Capability for Mastering Customer's Business
Helgesen, (2007)	The most influential (antecedents) of customer satisfaction	Exporter's range of offered products Exporter's answers to inquiries Information regarding order progress Promptness of deliveries Quality level of products Terms of deliveries Competitiveness of prices
Homburg & Rudolph, (2001)	Valid customer value measure for industrial customer (INDSAT)	Product features Product-related information Services Order handling Complaint handling Interaction with sales people Interaction with internal staff
Richards & Jones, (2008)	Value drivers in customer relationship management	Improved sales force efficiency and effectiveness Individualized marketing messages Customized products and services Improved customer service Efficiency and effectiveness Improved pricing

Ulaga (2003)	Relationship value drivers	Product performance Product reliability Product-related services Customer information On-time delivery Accuracy of delivery Knowledge of supply market Improvement of existing products Design task Product testing and validation Communications Problem solving Mutual goals Price above, below, at competition Order-handling
Chakraborty et al., (2007)	Drivers that influence customer satisfaction in a business-to-business context.	Reliability of the supplier Adherence to delivery schedule Breadth of product line Competitive prices Warranty coverage

All of the mentioned drivers are relevant to conditions of business relationships and should be properly treated. However, as it was stated earlier, business relationship is a context specific phenomenon, so the set of the most relative value drivers is unique and context-specific for every relationship. What is more, Wimmer & Mandják (2002) emphasis that every company is obliged to find her own factors that are adjusted to its own objectives and processes, through which the value creating process is influenced in the most efficient way and thus – competitive advantage is achieved.

Different value drivers presented in the table 3 have been studied to prove their impact on customers' perception of obtained value. Depending on revealing conditions, they can all serve to some extent, as benefits of relations and thus have potential to improve their experience and consequently – intensions for further cooperation. Some of the attributes are repeated across different studies indicating that they are relevant for various customers in different industries. Although the set of best fitting drivers may vary from company to company, awareness about less important drivers is still important to understand the potential areas of influence or room for improvement in case of dynamic changes.

In order to facilitate understanding of value drivers in business relationships, they can be divided into categories based on their nature. Table 4 integrates value drivers into separate categories for ease of allocation and navigation.

**Table 4.** Components of product value drivers (adapted and supplement from Ulaga, (2003).

<b>Name of the category</b>	<b>Included value drivers</b>
Product quality	Product performance Product reliability Breadth of product range Customized products and services
Service support	Product-related services Customer information Warranty coverage Availability of product-related information
Delivery	On-time delivery Accuracy of delivery
Supplier know-how	Knowledge of supply market Improvement of existing products
Time-to-market	Design task Product testing and validation
Personal interactions	Communications with sales personnel Interactions with internal personnel Problem solving Mutual goals
Direct product costs	Price above, below, at competition Cost reduction programs Reliability of supplier
Process costs	Order handling Complaint handling Manufacturing

#### 2.2.4. Summary

If in the previous section it was discussed “what?” should be done to develop quality business relationships, in this section it was investigated how to do it. Given the basic components of product value – ratio of benefits to sacrifices, it becomes clear that by increasing potential benefits and decreasing sacrifices, a supplier firm own a chance to increase customer satisfaction and positive experience. Benefits in this context is a very broad and meaningful notion, which implies various areas of influence on one hand and dynamics of customer needs and preferences over time – on the other.

Areas of influence relate to the functional, economic, emotional and strategic benefits, which represent actions across the whole cooperation processes, starting from provision of sufficient product related information, agreement of delivery conditions and finishing with availability of supportive after-sales services or informal communications.

Dynamics of product value can be examined in macro- and micro-senses. By macro-sense it is implied that fast changing conditions of the metal industry in Finland require manufacturing firms comply with them and constantly modify their technologies and equipment. Thus for a supplier firm it is vital to follow the dynamics of the market generally and satisfy customers’ up to date requirements appropriately and on time. In micro-sense it means that customers’ needs change with the flow of the relationships. Thus, a supplier firm should concentrate on and promote economic and functional benefits for the potential customers, while existing members of relations will value professional service support, prompt responsiveness as well as regular communication sessions. Speaking about partners in the network, the most wanted values would include mutual willingness to share existing resources for common projects, maintaining regularity of contact and developing new opportunities for joint implementation etc.

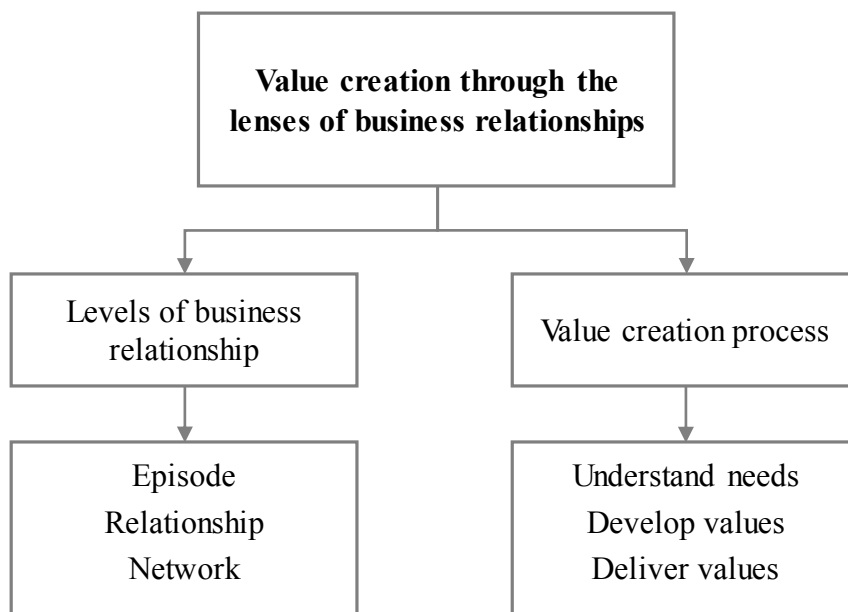
In order to navigate within the vast amount of possible value drivers and choose the most efficient ones, a clear understanding of customers’ needs, wants, perception characteristics is required. Because customers own the precious knowledge, which suppliers should derive in order to satisfy their needs in a best way and provide in such a way sustainable, mutually beneficial relationships.

### 2.3. Theoretical justification of empirical research

Analysis of background literature shed light on links between quality of business relations and product value creation (figure 8). They include:

1. Different value characteristics on three levels of business relationships.
2. Processes of understanding, creation and delivery of value for customers.
3. Appropriate value attributes for different roles in buying center caused by complexity of business relations.

It concludes that value creation and business relationships are entwined concepts (Rocca & Snehota, 2014). In business relations, value creation is indeed a centric concept around which interactions are developed and relations accrue. Since business relations are long-term oriented, value creation is a continuous and dynamic process respectively, which needs a comprehensive approach. In order to develop quality relations, a lot of attention, knowledge, and cooperation has to be devoted to the process of value creation starting from studying the specifics of how the customer conducts his business and finishing with availability of convenient ways to sharing customer feedback and experience.



**Figure 8.** Linking product value theory to relationship quality theory.

Imposition of the theories can be explained by the following example. A firm in industrial sector has a customer company that needs regular fast deliveries of quality high-tech goods. In respond, the provider is required to:

1. Ensure high-quality standards of manufacturing products.
2. Put effort into standardizing delivery processes
3. Provide 24/7 technical support and flexible training possibilities.

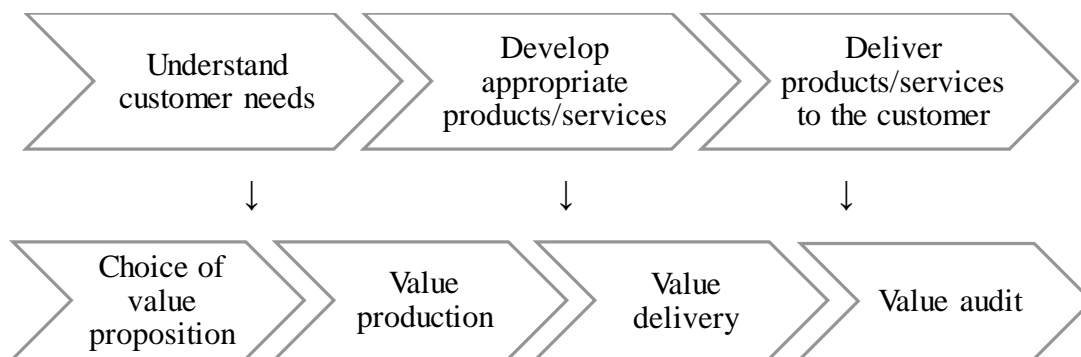
As a result, the customer is likely to experience trust in the reliability of supplier, commitment to continue exchange episodes and satisfaction with both the object of exchange and accompanying services. In addition, complementary dimensions of relationship value may develop, for instance, joint problem solving, resource ties, investments etc.

### 2.3.1. Value creation process in business relations

The question of value creation in industrial markets is a point of great interest in existing literature (Mele, 2007). It is a complicated continuous process of alongside relationship development process that is characterized by involvement of multiple actors including supplier form representatives, customer firms, partners, third parties etc. Value creation cannot be assigned to a single unit at the organizational boundary as, for instance, sales or marketing (Rocca & Snehota, 2014). Webster (1992) reminds that every person in an organization should be to some extend responsible for the process of value creation that consists of the following stages: understand customer needs, develop the appropriate values and deliver created value to the customer. Similarly, Bower & Garda (1985) saw the process in three stages: identify customer needs, divide customer groups by different characteristics of value and design and produce the right products/services for the defined customer groups. However, nowadays, in the age of relationships, nature of production is different from previous ages. Product / services are characterized by more individual approach, indeed customization and personalization (Galbreath, 2002). That is why, the process of value creation is best described by the following stages: choice of value proposition, value production, Value delivery and communication and finally, value audit (figure 9) (Mele, 2007). This process echoes with the already mentioned process of relationship management in business relationship

literature: understand customer needs, develop appropriate products/services, deliver (communicate) products/services to the customer.

**Choice of value proposition.** In business relationship markets, the choice of value proposition is a vitally important step that first of all, identifies the development path of further steps of the process and second, represent firm's future differentiation, positioning and potential competitive advantages. Choice of value proposition has gained such a great importance because it is the customer who identifies value, meaning that characteristics of the product/services are based on customer s needs and preferences. Taking into consideration customers' individual perception of values, it is concluded that value proposition is not a fixed truth, it is rather a dynamic concept that requires constant rethinking and permanent improvements (Mele, 2007).



**Figure 9.** Process of product value creation.

**Value production.** Value production serves as a facilitator of value proposition, representing a bridge between what the customer wants and what the firm produces. It is the process of implementation of value proposition in form of product/service technical and functional characteristics.

**Value delivery and communication.** On this stage, a great role of successful delivery and communication of value belongs to the function of marketing as such since it attempts to ensures the fact of transaction and maximize the number and quality of these transactions. As Mele (2007) describes, value delivery is the 'moment of truth' for both customer and provider in which expected quality and delivered quality meet together.



What is more, communication of value to customers reduces the risks of misperception due to lack of information.

According to Salomonson, Åberg, & Allwood (2012), certain communicative skills can contribute to building trust and satisfaction in buyer-seller relations and thus – have impact on product value creation processes. Attentiveness, perceptiveness, and responsiveness – are the behaviors of interaction involvement that help to increase the descriptiveness of communications with customers. These skills help firms to learn as much as possible about customer preferences, specific needs or concerns with the aim to provide appropriate products and services to meet those needs (Salomonson, Åberg, & Allwood, 2012). Attentiveness – show involvement in customers' problems/issues. Perceptiveness means assigning meaning to the verbal and nonverbal messages. Responsiveness stands for demonstrating understanding of the message a customer intends to convey (Salomonson et al., 2012).

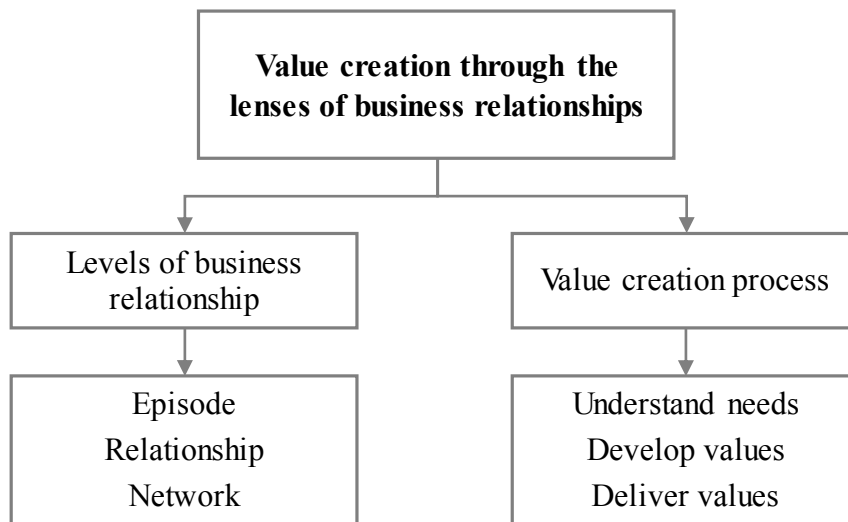
**Value audit.** Value audit as a conclusive stage of value creation process in business markets, has a twofold function. First, it is important as a measure of effectiveness of the marketing strategy. Second, evaluation of value in use leads to better understanding of customers, identifying of strong and weak sides and of the firm and provides useful insights for the future improvements of value creation and delivery processes.

### 2.3.2. Product value dynamics in business relationships

Product value, as mentioned previously, is a ratio of perceived values to sacrifices (Lapierre, 2000) a customer experiences in the process of building relations in general and during exchange episodes in particular. Mandják & Durrieu (2000) distinguish two dimensions of value in industrial markets: intrinsic and extrinsic, both of which are composed of economic and non-economic values. Intrinsic elements come from the product itself and economically represent product performance, functionality, price, innovativeness etc. Non-economic intrinsic elements reveal image side of the product, for example, famous name of the brand, modern design of products, unique packaging etc. At the same time, extrinsic elements are associated with additional pre- and after-sales services. They include maintenance programs, technical support, warranty,

trainings for the personnel as economic aspect; and reputation, reliability, responsiveness, dyad relations, service etc. as non-economic aspects (figure 10).

The process of building business relationship is a process of constant exchange of values between the parties. Values have different nature at different stages of cooperation, meaning that product value is a dynamic phenomenon because it tends to change as relationships switch to new levels: from episode to relationship to network levels (Ravald & Grönroos, 1996).



**Figure 10.** Product value dimensions.

Speaking about episode level, which is characterized by exchange processes of products and accompanying services between two parties, tangible or economic values play a more important role because customer has to choose the best in his opinion value among various propositions. In episode level, the most favorable ratio of benefits to costs is highly likely to be preferred by the customer. Moreover, if a firm provides something unique and valuable to the customer, there is a high probability of repeated purchase intention (Ravald & Grönroos, 1996).

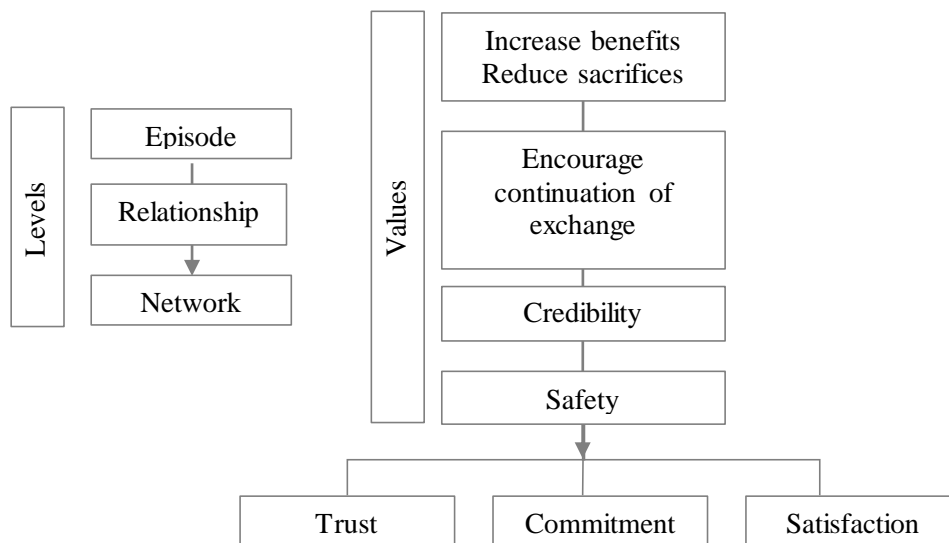
Usually after a couple of successful purchase episodes, when communications start to transform into relationships and then networks, other values such as safety, continuity, security and credibility evolve, pushing thus tangible values to the sideline (Mandják & Durrieu, 2000). This takes place when customer is satisfied and knows that this firm is able to understand and fulfill his needs, organize proper delivery processes and provide

sufficient aftersales services – in other words, customer develops trust in his supplier. Availability of these values in business relationships contribute to decrease of sacrifices, retention of existing customers (Ravald & Grönroos, 1996) resulting in increased satisfaction on future exchange episodes. On table 5, the focal values on different levels of relationships are indicated:

**Table 5.** Focal value in levels of relationships.

	Tangible values	Intangible values
Episode level	✓	✓
Relationship level	✓	✓
Network level	✓	✓

Thus, on episode level the unit of exchange is products and accompanying services – tangible values are more important than intangible. Later on customers start appreciating non-economic (intangible) values like confidence, coordination, trust, safety etc., what ends up in joint problem solving and beneficial resources utilization for both parties (figure 11).



**Figure 11.** Value dynamics in business relationships.

### 2.3.3. Summary

Based on business relationships and product value theories exploration and analysis, important conclusion that contribute to answering the research question emerge.

First, as it was stated, creating superior product quality ensures customer satisfaction and commitment in buyer-seller relationships. However, having sufficient product value attributes is still not enough to ensure quality of the relationships. It is critically important for the firm to be competent in proper delivery of particular values to particular actors at certain time and place.

Second, it is critically significant to realize the importance of continuity in business relationships. Concentrating attention only on exchange episode does not open the full potential of relationships and unfortunately, does not guarantee the mutual benefits for the future relationships. Such values as trust, commitment and satisfaction do not evolve over night and are results of continuous cooperation where both parties are interested in further cooperation.

Third, when trying to develop successful relationships, it is not enough to concentrate only on increasing benefits and decreasing costs. The meaning of relationships lies in firm's sufficient responsibility to meet customer expectations in long run, gaining in such a way trust, loyalty, desire etc.

Fourth, when customer perceived value is approved on relationship level, it will strengthen the network bonds on one hand, and increase perceived product value on episode level on the other hand (Ravald & Grönroos, 1996).

Fifth, many theorists and practitioners mistakenly treat the decision-making people in customer firm as the most important and address all the values and attention only to them. Although they are responsible for financial issues, they are not as close to the product as operators and engineers who directly involved in product utilization and whose experience contributes significantly to the overall quality of perceived value.

### 3. METHODOLOGY

This explanatory section provides detailed description of empirical research design. Since the need for empirical research is justified by theoretical findings, the role of theory is discussed first. This part includes logic of building theoretical findings and its influence on defining the research strategy, followed by design. After that, more detailed instructions of data collection and interpretation are explained including criteria for choices and time horizon. The chapter finishes with quality constructs of the empirical research.

#### 3.1. Role of theory

In academic world, most of the researches are based on theoretical findings that are being used to study various phenomenon and contribute to building new theories. The term *theory* can be explained in different ways but it is generally used as a way to explain observed regularities (Alan & Bell, 2011). One of the most common ways to build a bridge from scientific theory to practice research is to undertake deductive theory organization approach, which is employed in this paper. Deductive theory operates on the principle from general to specific. It means that in the base of the research lies a known domain and within the domain various theories are studied, analyzed, connected with each other what results in defining research questions that needs to be subjected to empirical scrutiny. Concepts that build the hypothesis need to be transformed into researchable entities with the aim to collect and analyze data from practical world. Results of the empirical study are then compared to the theoretical findings so that the research questions are answered and hypothesis is either confirmed or refuted. To sun up, the deductive research goes through the following stages:

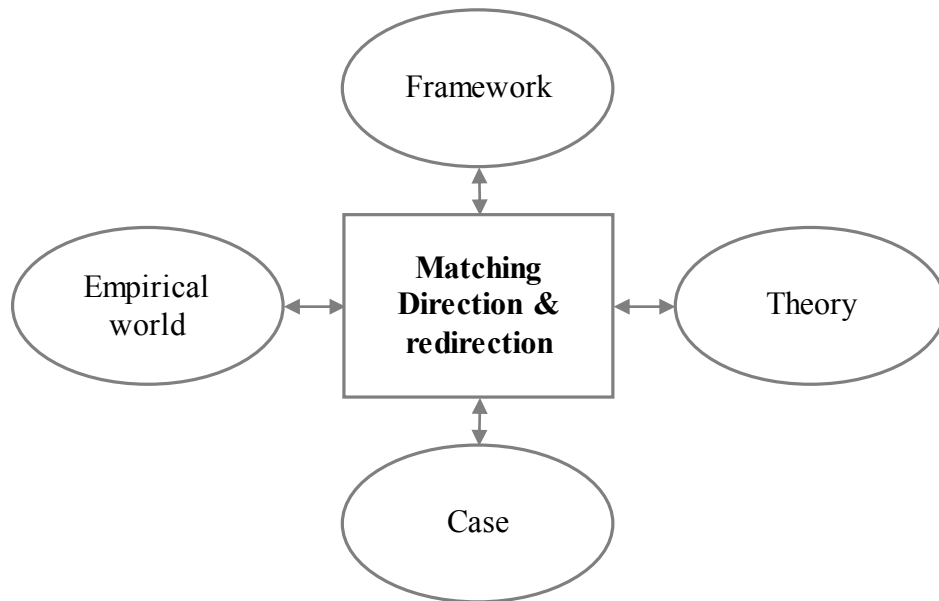
1. Theoretical literature analysis.
2. Research questions designation.
3. Empirical data collection.
4. Results/findings of the practical research.
5. Answering research questions.
6. Revision of theory.

Although deductive research refers to theory testing approaches rather than theory building (for example, inductive approach), it still provides significant contribution to theoretical knowledge about relations within theories. It is evident from the final step of the approach – theory revision, which goes in the opposite direction from deduction – from practice back to theory. This step is important to review the theory and modify in light of the empirical results if necessary, so that these findings can lie in the base of future researches by other authors. Moreover, the paper can also be characterized as an inductive research to some extent. As it is known, the base of deductive review comprises various theoretical findings and approaches, however in this paper some of the sources for literature review represent inductive researches – practical issues that lied in the base of a theoretical investigation (Kovalainen, 2014). Combination of two methods, which is called abduction, helps to investigate the research phenomenon from a wider perspective. This in its term increases the likelihood of generating useful data on one hand (Saunders et al., 2009), and increases validity of the research on the other.

When combining theoretical and empirical data, it is important to keep conformity of theory to practice. Although data collection practices is handled in line with present framework, it does not exclude the fact of discovery: in the process of data collection, not foreseen aspects or new dimensions of the research problem may arise (Dubois & Gadde, 2002). In order to meet the conformity, gathered data should not be forced to satisfy preexisting believes. Instead, going back and forth between framework, data sources, and analysis helps to develop comprehensive and acquitted study. This approach is named *systematic combining* (figure 12) and is widely used for case study researches (Dubois & Gadde, 2002: 556).

Systematic combining is placed between deduction and induction in terms of theory development. If deductive approach implies confirmation or rejection of a formulated theoretical framework, inductive research is aimed on inventing contemporary new theory, which did not exist before. In contrast to these, systematic combining emphasizes on theory development, based on blending existing theories and new concepts obtained during empirical data collection. Although this paper is built upon a linear – analytical structure globally, the elements of systemic combining were implied

during matching initial theoretical framework and factual data from practical environment.



**Figure 12.** Systematic combining (Dubois & Gadde, 2002).

This approach opened an opportunity to discover new concepts and integrate them into existing theory, contributing in this way to development and extension of theoretical knowledge. Moreover, going back and forward between the sections help to describe in-depth structure of the studied phenomenon in context-specific situation and better understand causal relations between variables.

### 3.2. Research design

Since this paper aims at investigation and understanding of causal relations between variables, it belongs to explanatory study (Saunders et al., 2009), which can be characterized by linking theories within one problem in order to understand this problem, operational principle, links and relations in specific context so that one can manage the problem in a desirable way. Although a combination of a deductive approach and explanatory study is often followed by a quantitative empirical research, the use of qualitative data can also be applicable. Qualitative research emphasizes meaning rather than frequency what is beneficial to investigation of relations between

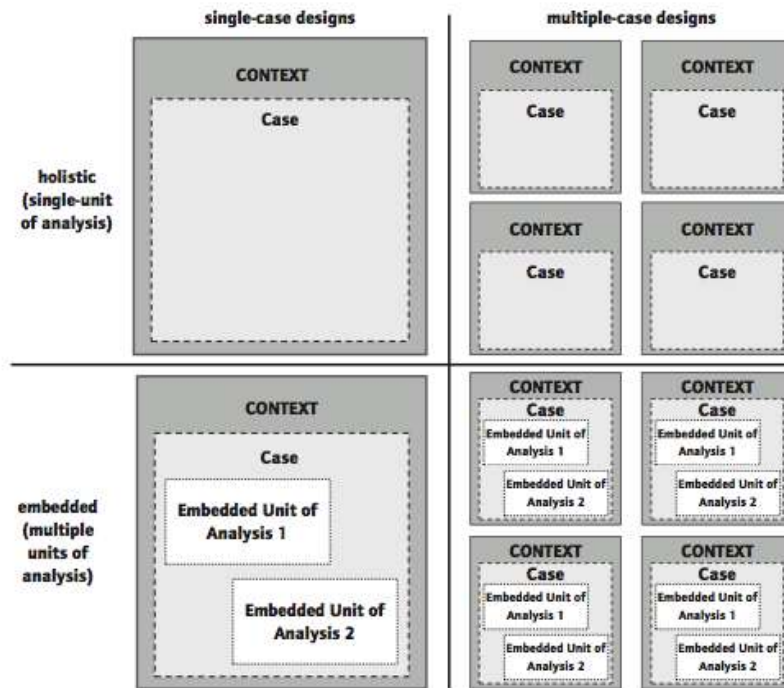
variables. According to Webb (2002), this method digs deeper in to the roots of the problem in order to create in-deep understanding, rather than just investigating the rationalized and superficial responses.

There are multiple ways available to employ in an empirical study. They may differ by their complexity, required time horizons, availability of various sources of data etc. Moreover, the same issue can be studied using different research strategies, for example, human behavior in certain conditions can be tested either by an experiment or by a survey. For the purposes of this paper, the case study as a research strategy was chosen to conduct the empirical study. The main criteria for choosing the right approach was the possibility to answer the research questions and meet the research objectives. According to (Robson, 2011), case study is ‘a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence’. What is more, case study is used when there is a need to explore causal relations between variables, in this case – between product value creation processes and quality of business relationships. Unlike other methods that are employed in a highly controlled context, a case study provides opportunity to gain a rich understanding of the context (Saunders et al., 2009) which plays an important role in business-to-business relationships. A case study approach aims at answering such questions as ‘Why?’, ‘What?’, ‘How?’ what makes it also suitable for the explanatory research.

In order to implement a case study successfully, it is important to distinguish between variations of a case study. Thus, two discrete dimensions: multiple- and single-case, identify four different options (figure 13). Multiple-case studies are generally considered to be preferable to single-case studies because they provide opportunity to identify facts that occur across various cases and according to that – generalize findings (Saunders et al., 2009: 147). However, in some situations single-case study is more preferable. Yin (2009) provides five such rationales, among which the most widespread are critical cases, extreme and unique cases. In order to avoid repetition, it is also suitable for representative or typical case. If there is an opportunity to study a previously prohibited phenomenon, a single case study, which is called revelatory, is



applicable. Finally, a single-case is more preferable when a longitudinal study takes place (Yin, 2009: 47-48).

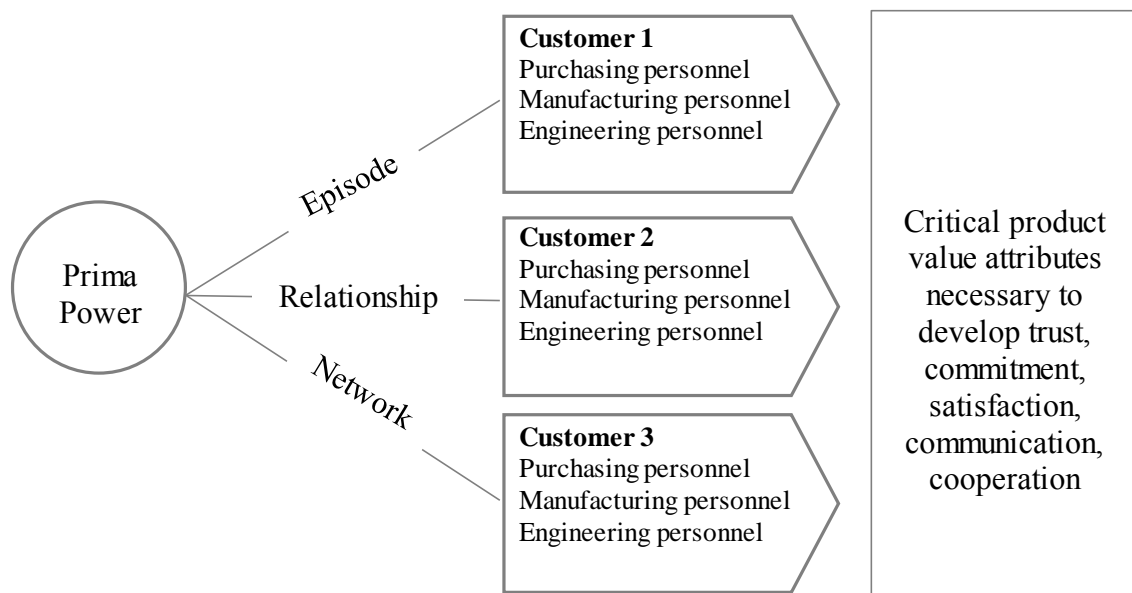


**Figure 13.** Basic types of designs for case studies (Yin, 2009: 46).

Another dimension for classifying case studies is holistic versus embedded study. The main difference between them lies in the number of study units. For example, if a study aims at investigation of nature of the phenomenon as one unit, the holistic study will take place. If there is a need to study sub units of one entity to understand its functioning, then it refers to embedded case study (Saunders et al., 2009).

When it come to the choice of the right method, it is important to consider pitfalls of each approach to avoid imperfection of research and inability to answer research questions. Speaking of holistic design, it can appear to be too abstract with no clear data delimitations. Embedded design, in contrast, emphasizes on sub units of the phenomenon without returning to the higher level of analysis (Yin, 2009). For that reason, a combination of different approaches to increase data completeness and minimize structural shortcomings can be implied in scientific researches. Thus, the research design of this paper combines embedded single- and multiple-case study.

The study is based on an example of one company within which various subunits were studied individually with further generalization on the company level. Based on the theoretical findings, the unit of analysis of the research is business relationships, which are studied on the example of a Finnish company operating on a sheet metal processing machinery market as a single case company. Embedded multiple case study is based on the comprehensive investigation of relationships in different contexts. First context provides communication routines and regularities between the case company and its customers on three levels of relationships: episode, relationship and network. The second context studies communication routines and regularities of different roles in buying center. After that single case analysis regarding describing critical product value attributes that are necessary to build higher order constructs of relationship quality such as trust, commitment, satisfaction as well as identification of complementary dimensions of relationship quality in the particular context (Figure 14).



**Figure 14.** Structure of the embedded single and multiple case study.

### 3.3. Time horizon

Regardless of the research strategy, a scientific research can be organized in two ways according to time horizon criteria: cross-sectional and longitudinal. The main difference between these approaches is continuance. Cross-sectional analysis concentrates on a

particular phenomenon and takes place at a particular time while longitudinal analysis is handled over a period of time and is used to study dynamics, changes and development (Saunders et al., 2009: 155). The choice of the method is justified by two reasons. First, the study aims at an in-depth studying of the phenomenon and second, the master's thesis as a project is limited in time.

### 3.4. Research method

This section of methodology provides detailed description and justification of the chosen methods implied in this paper to accomplish the research including such steps as primary and secondary data collection processes, criteria for choices of research units as well as data analysis and interpretation approach.

#### 3.4.1. Data collection

There are certain technics available for data collection and analysis procedures. The choice of the methods depends first on the type of data to work with – either quantitative or qualitative. The former one refers to numerical information like numbers, graph or statistics while the latter one means non-numerical data such as words, pictures, video clips, etc. (Saunders et al., 2009: 151). Since this empirical study is based on a case study research with a need to gain reach understanding of the phenomenon, the primary data refers to quantitative.

The most corresponding method to collect qualitative data in research papers is interview that according to the context may differ in terms of structure and formality. According to this, interviews are commonly categorized into structured, semi-structured and unstructured. The first category implies highly standardized interviewer-administrated questionnaire (Saunders et al., 2009: 320); they are so clearly-defined that sometimes this method can be used to collect quantitative data. In contrast to this, semi-structured interviews are less standardized; they provide a list of certain topics to talk over however, the question formulation and their consequence can vary from person to person. Finally, unstructured interviews refer to informal communication about in-depth

ideas in a certain area of concern. Based on these differences, it becomes evident that the most suitable type of interview for this paper is a semi-structured interview because it is frequently used for an explanatory research category (Saunders et al., 2009); it covers the needed topics and ensures depth of information. What is more, ease and openness of communication allow new ideas to generate during the process of an interview.

The process of data collection started with primary communications with the case company explaining the aim and content of the research to find out best applicant for each category interview. After that, every candidate was contacted to present the purposes of the study in general and their role in particular with stressing attention on the importance of their contribution to the research. The interviews had several locations including Prima Power facilities for face-to-face conversations with local customer companies as well as web space for international customer companies via Skype (Table 6). Each interview was lasting from one to two hours. The content of every discussion was recorded with an electronic device and transcribed into text afterwards to ensure completeness and validity of the gathered data.

**Table 6.** Data collection process through interviews.

Customer Company	Episode level			Relationship level			Network level		
<b>Industry</b>	Manufacture of non-domestic cooling and ventilation equipment			Sheet metal punch and bend, subcontracting			Sheet metal mechanics, subcontracting		
<b>Turnover, mln. EUR*</b>	59.4			3.4			4.5		
<b>Country</b>	Netherlands			Finland			Finland		
<b>No * employees</b>	239			14			53		
<b>Interviewee</b>	Operations manager	Service support manager	PSBB line Operator	Founder, owner	Service & Maintenance	Automation system operator	CEO, Co-owner	Internal Engineer	Laser machine operator
<b>Date</b>	22.10.15	20.10.15	23.10.15	24.08.15	25.08.15	24.08.15	02.09.15	02.09.15	05.09.15
<b>Place</b>	Skype	Skype	Skype	Kauhava	Skype	Kauhava	Seinäjäjoki	Seinäjäjoki	Kauhava
<b>Duration, h</b>	1.5	>1	>1	1,5	>1	>1	1	1	>1

\* Source of data – Orbis database (2015)

Alongside the primary data collected through the interviews, the availability of secondary data is important for verification of the collected data. Thus, related information from various sources such as scientific articles, researches made for other purposes, statistical data and documentation was included into data collection processes.

#### 3.4.2. Criteria for choices

Depending on the type of data, sampling technics are divided into probability (or representative) and non-probability technics. The first is usually implied to quantitative data since it helps to describe characteristics of the population statistically. The second is more often related to qualitative data collections technics because it provides an in-depth study of a specific case gaining rich theoretical and practical insights (Saunders et al., 2009).

Consequently, this paper is based on a non-probability sampling approach within which a stratified purposeful sampling technique was implied to select the appropriate units. This method is similar to stratified random sampling, but deals with a smaller sample size. The population is divided into subgroups according to some characteristics. The main goal of this strategy is to capture major variations although common themes may emerge (Patton, 2001). Defined by the theoretical findings the population – customer base of Prima Power Oy is initially subdivided into three groups based on the level of relationships:

- customer company that made purchase one or several times;
- customer company that made purchase more than several times
- customer company that has been in relationship with Prima Power for a long time and is one of the partners.

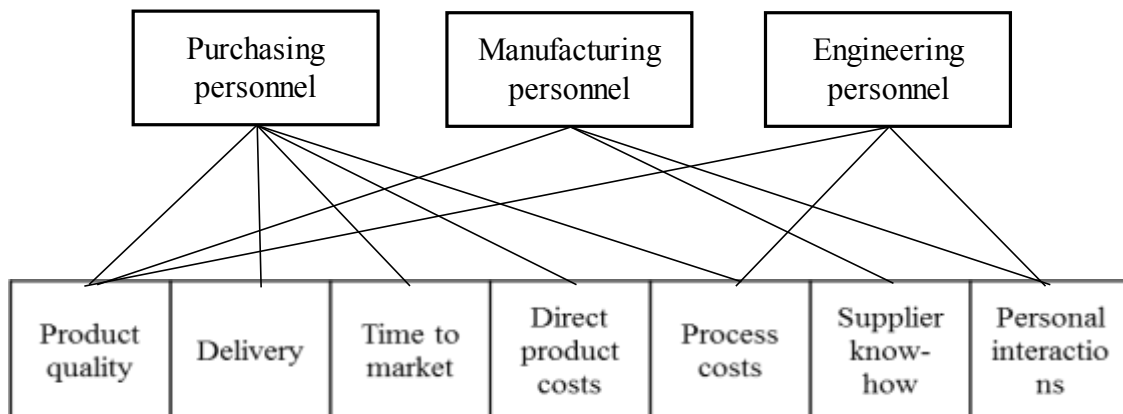
Selection of companies from every sampling category is done according to geographical principle as requested by Prima Power Oy. Thus, the company that represents episode level of relations operates on international market and companies that represent relationship and network level of relations operate locally on Finnish market. Since Prima Power is an international company, there is an interest to analyze not only local customers' perception of provided product values but to draw particular qualities of international customer preferences as well.

### 3.4.3. Buying center

One of the features of industrial marketing relationships is complexity. It means that many people are involved in decision-making process. What is more, people come from different functional departments and thus – their areas of interests may vary. If a firm in industrial market is able to show its competency in providing right functions at the right time and place, customers' perception of received value is maximized and consequently, value of the product is maximized as well. Literature research helped to identify three different role issues in the buying center:

- purchasing personnel (decision-making managers);
- manufacturing personnel (operators of the products/services);
- engineering personnel (technical support of manufacturing processes).

All of these representatives treat certain product values more than others. Thus, purchasing personnel is more interested in commercial and reliability aspect when purchasing industrial products/services. Manufacturing personnel give preference to product related aspects such as breadth of product range and functionality. Engineering personnel will appreciate availability of product related information and ease of communication with internal supplier personnel more than other aspects of product value (figure 15).



**Figure 15.** Value attributes of different roles in buying center.

Variety of roles in buying center is especially important to take into consideration in product value delivery processes because communication of certain values to people

who would appreciate them the most can significantly increase effectiveness of marketing objectives on one hand and increase perceived value of the product/service in final result – on the other.

#### 3.4.4. Data analysis and interpretation

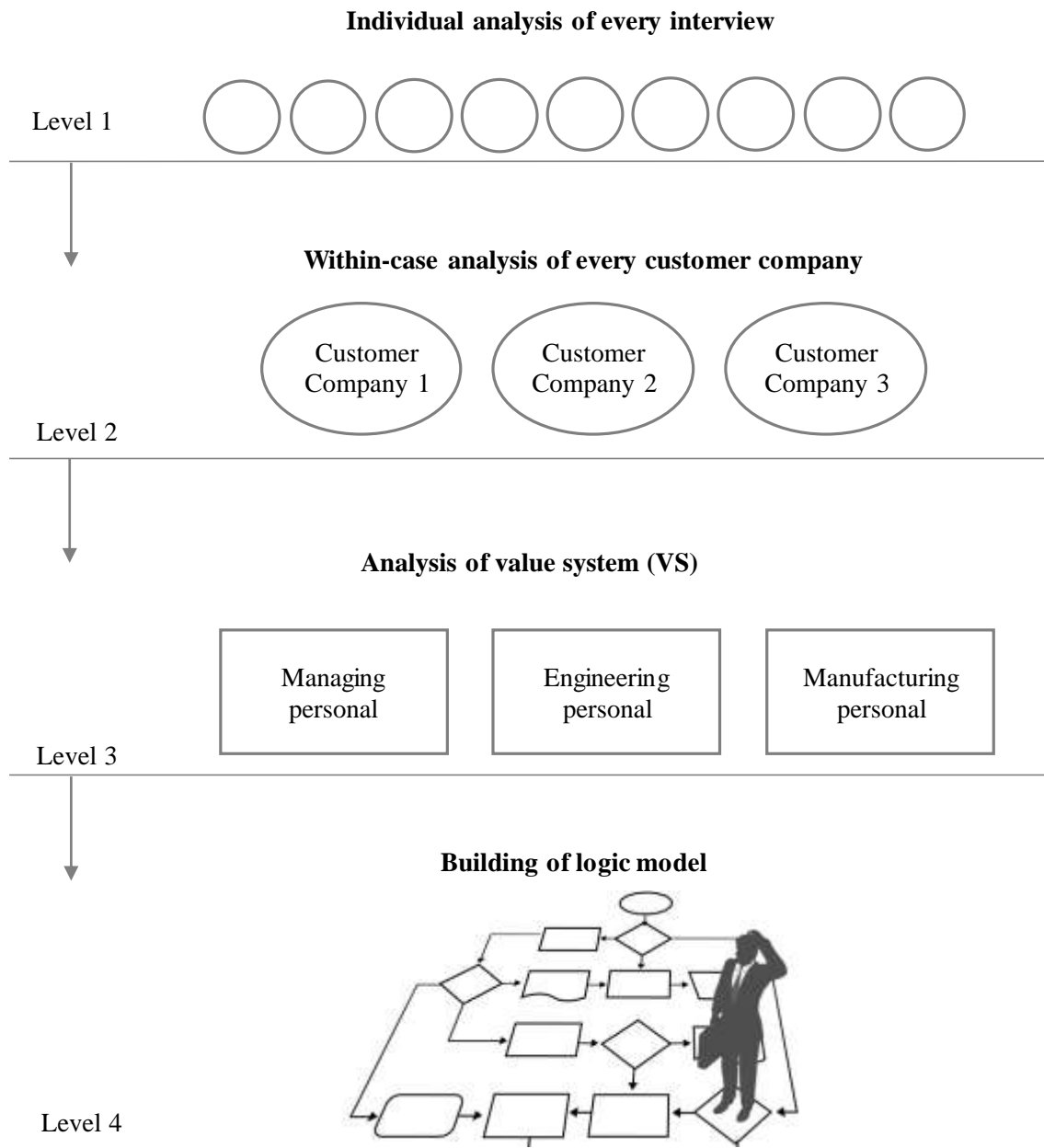
In order to avoid potential difficulties of the case study analysis, Yin (2009) recommends defining first of all an overall strategy followed by detailed techniques.

There are four different data analysis strategies:

1. Relying on theoretical propositions.
2. Developing a case description
3. Using both qualitative and quantitative data
4. Examining rival explanations.

Relying on theoretical propositions strategy was chosen to conduct the analysis for several reasons. First, it is the most preferable option for a deductive explanatory research. Second, empirical data collection is theoretically oriented and is aimed on reviewing, modifying or supplementing theoretical findings. Finally this method is useful to answer ‘How?’ and ‘Why?’ research questions.

Speaking of detailed analysis, several technics were implied. Since the research design consists of embedded single and multiple cases, the analysis starts with within-case analysis of each customer company on each level of relationship. After that, within-case analysis was conducted to analyze information provided by different roles in buying center: purchasing personnel, manufacturing personnel, engineering personnel. In order to understand causal relations of product value-creation process that contributes to gaining relationship quality, the third analysis technic – a logic model was implied (figure 16). The task of the last technic is to place events in cause-effect pattern so that an independent variable on earlier stages becomes a dependent variable (Yin, 2009: 149-156). This method helps to understand the phenomenon in general and more specifically – how its separate actions contribute to the system. What is more, the logic model matches theoretical predictions with empirical results what corresponds to the principles of scientific deductive research (Yin, 2009: 149).



**Figure 16.** Empirical data analysis process.

### 3.5. Quality of the research

The particular attention has been paid to research design with the aim to ensure evidence of the statements and conclusions. The detailed descriptions of every step of the research justifies the objectivity of choices and processes. With the aim to minimize



the errors and biases in the study, this chapter explains two important aspect of research design: reliability and validity.

**Construct validity.** Although some authors claim that qualitative research cannot be tested in term of validity, the need for a certain qualifying measure is still needed (Golafshani, 2003: 602). According to Saunders et al. (2009: 157), validity implies availability of evidance that the “findings are really about what they appear to be about”. One of the ways to prove validity is to use multiple sources of data collection that indicate the same reality. This method has received the name *triangulation* (Saunders et al. 2009) and is considered to be notably important in case study researches. According to this, multiple sources of data gathering were employed in frames of this research. In addition to the interviews, internal documentation and external databases were reviewed and consultation sessions with the supervisor from the initial case company – Prima Power were held to establish a chain of evidence. Moreover, empirical data interpretation were subjected to supplementary revision by interviewee and the case supervisor to ensure that it reflects what it was intended to represent.

**Internal validity.** This indicator of research quality is especially important is studying causal relationships because it questions the variable that really causes the relationships (Saunders et al. 2009). In some circumstances inferences in case studies can be affected by different variables that the author is not even aware of. Thus, threads to internal validity can be hiddent in resent events or changes that influense some oppinions for a short time period and is not relevant in general terms. It can be also biased by ambiquity about causal directions from the researcher perspective. Building the logic models as a data analysis technick is a usefull tool to look at the data collection and analysis systematically and reveal possible threads. In addition, data gathered from different perspectives, meaning different roles in buying center hepls to trace pattern matching while collecting data from different interwees in framed of one company. The structure of the systemic data collection stands for critical check of consequences, which helps to clarify the causes, contexts and increases the credibility of the research findings in general.

**External validity.** Taking to account the delimitations of the study, this research is not able to provide general results that can be applicable in conditions other than during this empirical investigation. Thus, the study takes place on behalf of Prima Power Oy that operates on sheet metal processing machinery market. According to this, the results may not be valid for companies operating in other sectors of economics or other companies in the same field that undertake different operational and strategic approaches to manage their business. What is more the research takes place at a certain time frames. This means that results can possibly be fully or partly invalid over certain time in future, considering that the greater time interval, the greater possibility of findings to be invalid. However, since this paper represents case study design, it can be generalized analytically (Yin, 2009:43), meaning that for other similar empirical research but in different conditions, the theoretical framework remains the same. Such act is called *replication*, and if the results of similar researches support the original research, it provides strong support for the elaborated theory. Thus, development of consistent analytical framework including background information, research design, particular approaches and techniques provides a researcher with an opportunity to handle similar research but in different contexts.

**Reliability.** Any scientific paper must provide reasonable claims and follow detailed logical structure including all possible factors that can shape direction or results of the study. In other words, if exactly the same research takes place twice by different authors, they should arrive to the same results and conclusions (Yin, 2009). Saunders et al. (2009) distinguishes between four different threads on the way to gather and analyze authentic data to ensure reliability of the research.

**Subject or participant error** refers to respondents' changes in moods depending on day of the week or stressful conditions that may affect their answers (Saunders et al. 2009: 156). To void participant mistake, they were free to choose comfortable time and place to handle the interviews. Moreover, they were informed in advance about the content and their role in the research to create interest and prepare themselves before the actual interviews.

**Subject or participant bias.** This thread deals with the fear of respondent to provide truthful information or his/her own opinions because this is not what they ‘need’ to say or this is not what their employer wants them to say (Saunders et al. 2009: 156). Thus, before conducting the interviews, confidentiality and anonymity of names in further data analysis were guaranteed. Furthermore, a part of the respondents are employers themselves so that there is no reason to be worried about the content of the shared information. Other participants were checked for their current employment security so that risk of participant bias is minimal.

**Observer error** can happen when several researches are working on the same project and different personalities can interpret data in different ways or have different attitudes to conducting data collection (Saunders et al. 2009: 157). In this project there is only one author conducting the whole research without involvement of other parties to data collection and analysis processes.

**Observer bias.** Qualitative data interpretation is ambiguous due to individual perception characteristics and attitudes of every researcher (Saunders et al. 2009: 157). The propensity to judge according to personal believes is a natural feature that is why some authors claim that it is impossible to avert observer bias completely (Saunders et al. 2009: 295), however there are ways to minimize this tendency. One of the ways is to undertake double blinded interviews – interviews without reviling the context of the research. This approach has a serious drawback of sharing nonrelated or not complete information without knowing the background of the study. Since there is no financial interest from the side of researcher, possibility of intentional bias is excluded. What is more, accuracy of empirical data collection and interpretation was discusses with the supervisor from the case company – Prima Power.

## 4. EMPIRICAL FINDINGS

The structure of the empirical results is composed of multiple layers of data analysis (Figure 16). First, every interview was transcribed into textual information for ease of analysis and possibility to insert direct quotes from the interviews. The content of the interviews was composed of value exchange processes between Prima Power and customer companies with an emphasis on what is done in the appropriate way and what areas of cooperation need to be improved (the list of questions is available in the appendix 1). The second level of analysis represents compound results of every customer company case. After that, the patterns of developing value system for each role in buying center over three stages of relationship are drawn. Different dimensions of data analysis lie in the base of building logic model of value system dynamics in the environment of Prima Power. Based on the established opinion of customers' experience, the recommendations for improved product value creation, delivery and communication practices are provided.

### 4.1. Within-case analysis

Within-case analysis reveals the results of interviews with every customer company separately. Thus, there are three customer cases – representatives from episode, relationship and network level of cooperation. Each case analysis provides compound results of three interviews: with operator, engineer and decision making manager from every case company. Compound results from each customer firm are applicable to new and potential customers as well as already existing ones.

#### 4.1.1. Customer Company A. Episode level.

Customer company A is an international provider of professional cooling systems for the hospitality, catering and leisure businesses as well as other institutions of catering facilities. Since 1958, the company has been concentrating on providing unique mix of products to satisfy specific customer needs. Today, besides the production itself, the company offers design, supply and installation services to its customers with the aim to

adapt products and services continuously and meet the changing needs of customers. Having 57 years of experience, turnover of 59.4 mln. euro per year and 239 employees, it is a large and experienced firm, however, relatively new to Prima Power as a supplier. The cooperation between customer company A and Prima Power started in 2014 with a large investment in a complete setup of manufacturing equipment. Customer's experience has been carefully studied to understand how did the relationships emerge and evolved. Three areas of influence that helped the customer to make the decision in favor of Prima Power were identified. They include technical benefits, professional communications and simulation facilities. The analysis of the concrete benefits is provided in the following paragraphs.

Customer company A has an extensive experience in the business that manifests in deploying various spheres of production including laser, punch, bend as well as complete automation systems. Different departments of production were represented by different providers of the appropriate technology. At a certain point of time, the management of the company realized that having a variety of suppliers is disadvantageous in many ways. First, it is difficult to manage technical problems, second it is not cost effective and time consuming to maintain bundle of communications. Thus, a need to find a comprehensive and reliable supplier revealed. Therefore, the ability of Prima Power to provide a full set up of required equipment made it a key supplier for years ahead:

*“Previously we had cutting machine, press brake and laser machine from different suppliers. I wanted to stop this because it is complicated to manage the things with so many suppliers. We were very demanding in having a complete setup. Prima Power could complete the setup. What is more, we got to know the technical possibilities of Prima Power that were bigger than those of our current suppliers. That was the most important reason – technical suitability.”*  
(Purchasing B)

Having one supplier that covers many spheres of manufacturing also implies that it should be a reliable and highly professional company able to provide sufficient service support. In spite of the fact that technical component of the offer was the main requirement, service and communication quality are as important.

*“Communications with Prima Power, the way they presented their complete system and full setup was pretty smart and the product seemed helpful. The group of Prime Power representatives were very interested in the final result that would fit our factory in the best way along with the convenient delivery process. That was very important to us.”(Engineering A)*

For a company that makes the first purchase, especially when it can be characterized as an investment, it is vital for the supplier to create a positive impression during the very first stages of communications. This is manifested in professionalism of supplier, because high competence of a potential partner inculcates a feeling of trust without any previous experience. In this case, professionalism refers to an ability to present the machinery in a lucid but comprehensive way, so that customer clearly understands the benefit of this machinery for his business:

*“I must say that Prima Power team was very professional. It helped a lot when you have to make such serious decisions. We were really impressed by the way they presented the set up system. It looked quite logical and simple. They made a great job.”(Manufacturing A)*

Due to the lack of experience, communications between Prima Power representatives and customer company A are important, however not as much as for representatives of relationship and network level. Communication practice is described superficially, mostly good or bad in general terms. It means that there is no yet specific characteristics as well as no distinct need for constant contact between the partners:

*“The communication processes with representatives are very good - with both sales and the installation team. You can reach them fast. You are very welcomed by the Finnish team. What is more, they are really helpful. It is easy to explain any problems to them. They can even come to our location and make sure that everything is solved.” (Manufacturing A)*

However, the quality of communications is seen in different things. One of the interviewees of company A emphasized the value of trainings provided for the employees. In spite of the fact that modern technologies are being actively implemented in industrial purposes, automation capabilities are becoming more advanced and equipment is getting added intelligence, certain skills and knowledge are still needed to

command the machinery. Moreover, there is a common problem of deficient use due to nescience on metal processing market. Usually companies buy a machine to perform one or several tasks on the enterprise being unaware about most of the functions of the machines and thus – opportunities of their business. For that reason multi-faceted detailed training are needed for the new customer to meet their expectations and to form their positive attitude at the earliest stages of future relationships:

*“There was a training for our manufacturing engineers and it was good. The person, who was making the training is a very good guy; during training he tried to explain the issues, for example, he pushed some buttons on the machine and the machine started to do what he was expecting it to do. He knows a lot about the machine and knows how to explain it. So, we had a good time and found out a lot of new things.” (Manufacturing A)*

When it comes to changing a supplier in large-scale enterprises, it does not happen in one day. Besides finding the firm that is able to satisfy the requirements, managers should also count all advantages and disadvantages to make a profitable choice:

*“We wanted a new machine and first of all, we evaluated our already existing supplier. It was ok, but we realized that we need a new supplier to have something to compare. I was doing calculations of the benefits of these machines comparing to benefits of already existing machines and facilities of my production. And Prima Power offer was very promising. One thing that helped a lot was simulation. It cleared the calculations and helped me to prepare the current lines. It was what I was looking for” (Purchasing A)*

Apparently, Prima Power has provided one more benefit that helped company A to make the choice. Virtual imitation of real-world processes over time helps to verify that cutting and punching sequence is optimal; the same simulation run at the machine guarantees the reliability and full compatibility of the NC software (Prima Power, 2015). Prima Power is one of the several companies who develop the software to run the machinery internally. A big research and development team is working on improving of software applications and consequently – the performance of Prima Power equipment. Thus, a possibility to simulate complete manufacturing processes to a new customer was an exuding feature to differ among other competitors and consequently – conquer customer’s sympathy.

All of the mentioned values originated the new relationships in spite of the sacrifices that happened on the way of the episode exchange processes. Soon after the installation of equipment, a software related problem revealed that was caused by installation team:

*“During the installation there was a team from Prima Power setting up the machines and left right after finishing the installing. After that, we have noticed some problems, which besides others, were actually caused by the installation team, we had some complaints about it. (Purchasing A)*

Although it is difficult to predict all possible risks, drawbacks during installation process should not happen, especially on the episode level of relationships, because it threatens the reputation and questions professionalism of the supplier.

*“There is back up in support, so the fault have been resolved fast and support team is responsive. But I think that the quality of the installation team has to be initial in Prima Power. We are sure that the facilities are absolutely good.” (Engineering A)*

In spite of minor mistakes, Prima Power was able to achieve a new customer and set the foundation for future relationships by meeting customer’s requirements from first, technical point of view, second – simple and smart communications and finally – sustaining approach to managing business relationships:

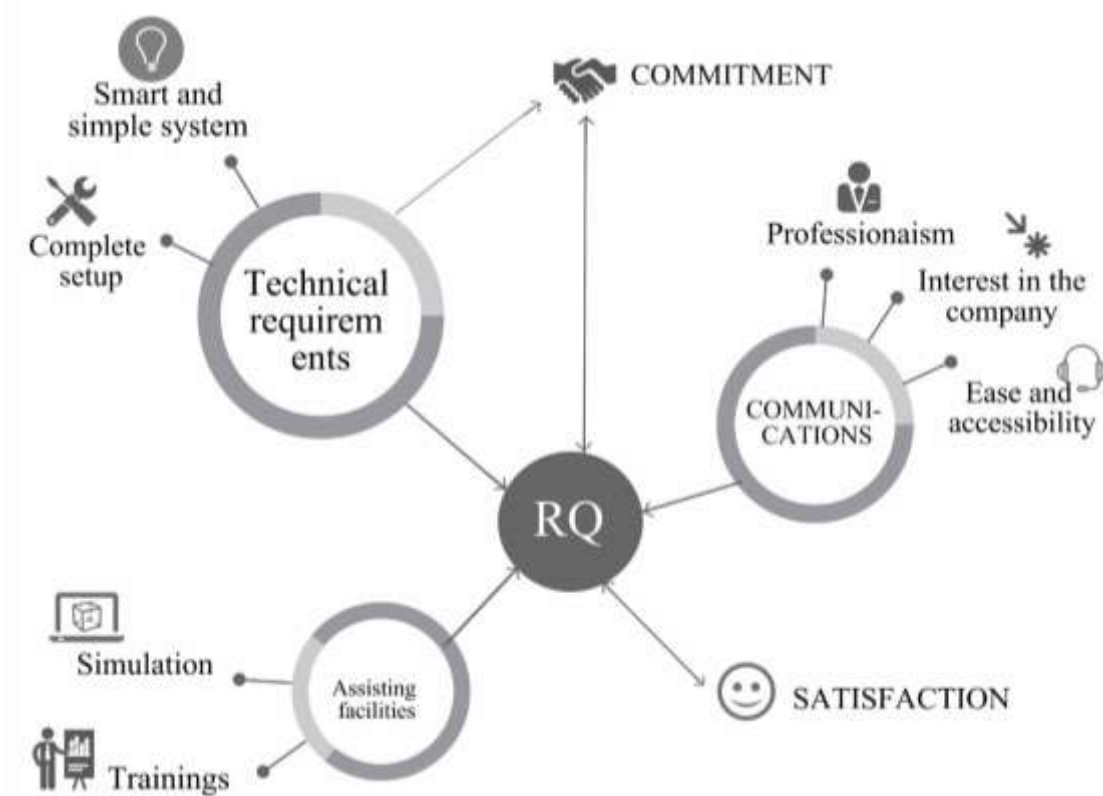
*“It’s nice to speak on the same language with international company representatives when you have to make such serious decisions. The price was important but not the most important thing. **The most important thing mostly was the complete package including the communications itself, the overall sales process and an interest in our company.** Prima Power won the competition.” (Purchasing A)*

#### 4.1.1.1. Summary

There are two important conditions that Prima Power should remember when handling episode level interactions. The first one is that there is no previous experience with the customer, which implies that Prima Power representatives are not aware about people, specifics of conducting business or manufacturing processes; their habitual approaches to build communications might not work with new customers. In this situation, it is



important to understand customer's needs and requirements to adjust the further communications accordingly and provide the feeling of the “right” supplier. The second important thing to remember is competition – a new customer always considers several suppliers, comparing their benefits to choose the best one. According to interviewees' opinion, the best way to differentiate among the competitors is to show professionalism in communications, interest in the customer firm and assisting facilities that help to make the decisions. Based on these derivations, the structure of product value attributes, applicable on the episode level of relationships, is composed in figure 17.



**Figure 17.** Product value characteristics on the episode level of interactions.

Basic relationship quality defining characteristics such as trust, commitment and satisfaction are not initial on the episode level of interactions because usually they appear as a result of successful previous experience. However, interviews with company A shed light on predecessors of these elements. In other words – what Prima Power should do to ensure mutually beneficial exchange practices that will lead to strong relationships over a period of time. Even if transaction process is not perfect, a customer will never discharge a promising potential supplier as a beneficial business partner.

#### 4.1.2. Customer Company B. Relationship level.

The representative customer of Prima Power on the relationship level is a Finnish subcontracting company from Kauhava (Finland), specializing on the sheet metal punch and bend operations. With the turnover of 3.4 million euros and 14 employees (Orbis, 2015), it refers to a middle-sized company; it has remained a customer of Prima Power for 9 years, since the establishment of the firm. With the aim to grow and differentiate, the firm recently started offering additional services to its customers, such as welding and assembling. So far, the arsenal of Prima Power equipment includes 10 punching and bending machines installed at the factory. However, during last two years the company B has invested into other providers' equipment.

There are several dimensions of benefits that the company B values the most in their relationships with Prima Power as their machines and software provider. The first and the most important value driver mentioned by representatives of the firm is trust! According to them, trust is a multidimensional concept that implies reliability of technology, responsiveness of personnel, and accuracy in delivery & installation processes. In other words, trust in the supplier lies in the base of successful business relationships between customer company B and Prima Power:

*“I think that the main thing is trust and the brand. I have always trusted Prima Power; they never leave you alone. If you have a problem, they will always respond and manage it. I think it is a strong side of Prima Power.” (Purchasing B)*

Trust is ranked as a top value category because it is extremely important in metal manufacturing business, which involves large-scale expensive equipment. It belongs to investment rather than purchasing so that the client is able to return the money back in a certain amount of time and be sure that the equipment is working for tens of years ahead:

*“...it is especially important when you are ordering big systems. There can always be some problems when installing big systems, it is always challenging. So you need a supplier you can trust.”(Engineering B)*

Trust is a feeling that emerges over years and is formed on basis of positive previous experience. However, it is much easier to lose trust in the supplier rather than to develop it. One accident, which has a negative consequences leading to, significant money and time losses is able to break the sense of trust. This situation is unacceptable in today's dynamic and highly-competitive world:

*“Actually we lost our confidence in Prima Power laser machines made in Italy. Because of one missing detail, the whole manufacturing process at the factory stuck for two weeks and we have lost orders for a couple of millions euros. Last summer we have purchased a laser machine from other company, because they are leaders in laser technology.” (Purchasing B)*

Another important value attribute derived from the previous one is technology. In the process of making big investments, it is important to trust not only people but also the technical side of the deal. Reliability of equipment is of strategic importance in metal industry for various reasons. First, it helps to establish reliable manufacturing process and handle the desired capacity. Second, quality of the machines guarantees fatigue free operation with minimum risk of unexpected breakages or faults. Third, efficiency of using resources, time and efforts is increasing dramatically over time. For that reason company B strives to choose the best technology provider for every sphere of operation:

*“We want to buy best technology; it's not only about brand, we want best technology in each sector. In my opinion, it is not so that you can buy all best equipment from one company. For example, Prima Power is best in punch and automation flexible systems, Triumph is best in laser, Salvagnini – in bending automation. It is always easier to make a decision when you know that they are technical leaders” (Purchasing B)*

Technology refers not only the machines but also software as a tool to operate the machinery in narrow sense and a pledge of high performance of the operation – in broad sense. The software provided by Prima Power can be implemented on different levels of operation – starting from operating one machine independently and finishing with remote planning and monitoring production of the whole factory with the help of one software product. Software becomes indispensable when several machines are installed in the factory and provides an opportunity to plan the production time, edit task list of each machine, and calculate the potential of the whole production:

*“Do you know what we are selling? We are selling time. Ok, finally it is parts but I feel like the most important thing we make is time. When the customer calls and asks for 500 parts, I need to have software that can calculate the production capacity including raw materials and time limits.” (Manufacturing B)*

The secret of keeping tight business relationships over years lies in communications on different levels: during exchange episodes, when the need for service arise as well as regular informal communications with sales representatives:

*“Communications is most important thing to stay in relations, when we don’t meet for some time, we lose the connection and then you have to build this connection again. I think you need to stay more often, constantly in contact. (Purchasing B)*

One of the most important aspect of communications for company B is responsiveness and rapidity during service support. Although the level of technology nowadays is fairly reliable and even sustainable, there will be always a risk of unplanned break-downs or faults caused by various reasons. With the aim to minimize negative effect and losses, the breakages should be fixed as soon as possible. Due to having significant experience with the machinery, some problems can be fixed by internal engineering staff, however, when problems that are more serious happen the hand of Prima Power professional service support is required. Both purchasing, engineering and manufacturing personal of company B prioritized prompt responsiveness and interest of Prima Power service representatives to resolve the problem to restore the manufacturing process:

*“We have planned service checks. However, we actually take care of servicing of the machines ourselves because we know everything about the machines. Of course, when we need some tools or if we have any problems, they are very responsive.” (Engineering B)*

*They come over here to make diagnostics first and then fix the problem. These machines are like big Legos. I think that PP service works very well.” (Manufacturing B)*

What is more, informal contact is an essential element for sustaining the feeling of connectedness; the more frequent the contact, the easier it is to keep the relations. Scholarly articles emphasis both personal and relationship benefits from practicing informal communications in working environment. Thus, Zhao & Rosson (2009: 244)

claim that relational benefits include connectedness, common ground and personal perception while personal benefits are manifested in the ability to receive some valuable knowledge to private goals and interests. This thought can be trace on the example of the customer company B:

*“To be honest, personal contact with the sales persons are very important. Today we had a lunch with the sales manager and the last time we had lunch together was about 6 months ago. During these two hours we do not speak about problems, we speak about life. I would like to stay in contact a little bit more often; they are not so active in communications. I get to know a lot of things about the market and new technologies.” (Purchasing B)*

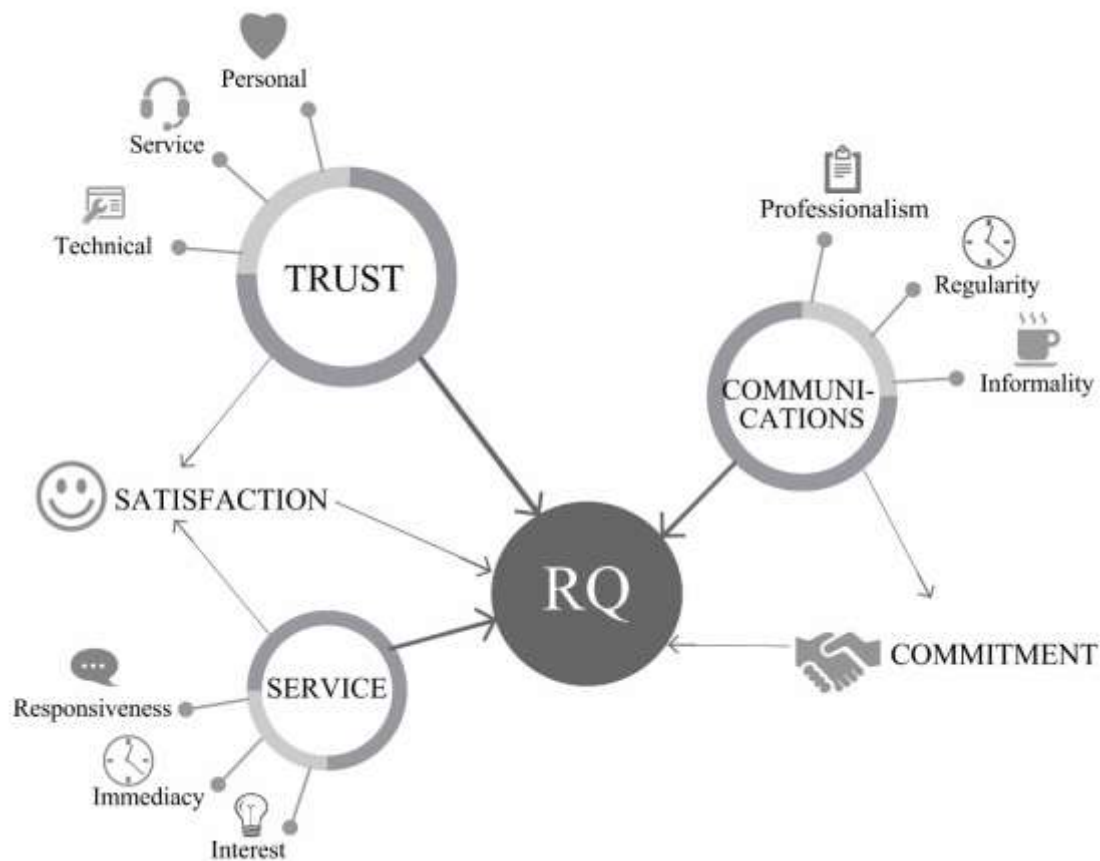
Speaking of complementary dimensions of the relationship quality, *professionalism of sales personnel* was mentioned as a pledge of smooth communications and satisfaction with the cooperation. It implies certain skills and experience needed to be useful for the customer. First, a sales representative should be talkative and straightforward – it facilitates understanding and ease of sharing thoughts or complaints. Second, he should obtain a broad knowledge of the industry to be able to share useful information about the market, potential customers as well competitors. Third, it should be a reliable person to trust and to be willing to sustain the relationships over time:

*It is important for the sales to keep in touch because they know us well and they know our business. They have to be professional. Not all sales are good sales in general. Nowadays, our business is so tight. I like experienced sales, I like to talk to them freely and receive information not only about the company but about competitors and news in general. I like that they are not only polite, they are also straight, so I can trust them.” (Purchasing B)*

#### 4.1.2.1. Summary

Cross-case analysis of the customer company B detects particular qualities of interactions, typical for the relationship level. They represent a hierarchical structure of interconnected elements, which in combination provide a strong base for quality long-lasting and mutually beneficial relationships (figure 18). Trust lies in the base of the structure. Under the conditions of Finnish market and sheet metal industry, trust implies three-dimensional reliability: technical, service and interpersonal reliability. Above the

trust comes quality of communications, which covers such aspect of communications as professionalism, regularity and informality. The third construct of the structure is proper service support that should be characterized by high responsiveness, immediacy as well as interest in resolving service requests.



**Figure 18.** Product value characteristics on the relationship level of interactions.

On the relationship level such dimensions of RQ as satisfaction and commitment are rather consequential than paramount like trust. Satisfaction with relationships comes naturally because of trustworthiness and sufficient level of service support. Commitment, in its turn, is manifested when communications remain constant over time and its quality corresponds the demands of the customer. Thus, in order to sustain quality business relationships, Prima Power as a main equipment provider of company B should concentrate its activities on the abovementioned reliability, communications and service issues.

#### 4.1.3. Customer Company C. Network level.

Customer company C – an actor in the Prima Power customer & partnership network. Originated in 2009 by the former employee of Prima Power, this firm has gained significant growth over the past 6 years and currently employs 53 people and generates a turnover of 4,5 million euros (Orbis, 2015). The subcontracting company already belongs to medium-sized category, specializing on sheet metal mechanics. Production facilities include manufacturing of ready to use standard products as well as customized solutions according to the needs of their clients. The owners of the firm dedicate their success to professional staff with decades of experience in the industry, extensive partner network that provides them with a possibility to offer comprehensive solutions and flexibility to be able to serve various customers.

The secret of successful relationships between customer company C and Prima Power is trust. Like in the previous section, trust spreads on various areas of operations including product, company and the support. Trust for the product implies its ability to satisfy the particular needs of the company; since the needs change periodically, the features of the machinery should be manageable as well. In other words, having an up-to-date technology and equipment modification ensures company's ability to satisfy various customer needs and to thereby, anticipate the competitors:

*“I think the most important is trust for the product, trust for the company and trust for the support. When we order the product, we want the most suitable for us; so it is really what we need. Our business is so fast, all the time changing and you have to be flexible. For example, machines need to follow the dynamics. So it is very important to see that the product is correct.” (Purchasing C)*

Prima Power is a current supplier of machinery and software to operate the machinery. Special attention was dedicated to discuss the software proposition of Prima Power from various angles. Thus, certain requirements were mentioned about functionality of the software in narrow sense and its role in the future advancement – in broad sense. Nowadays software is a critically important element in metal processing business because it defines functionality of equipment and functionality of the whole business. There is a great potential for the software development in the future because it can

interconnect every machine at the factory in one system and give full access to managing manufacturing processes with connection to enterprise resource planning (ERP) systems and manageable features of every machine installed:

*“I would say that software is becoming more and more important. You cannot change mechanical part of the machines very much – you have certain engine, certain kind of mechanics. There is a saying that bad mechanics can be fixed with good software. When you have something bad in the mechanics, you can correct it with good software. The software needs to be very user-friendly, very sophisticated, very clever.” (Engineering C)*

*“There is always room for improvement in case of software. In different places, different solutions are needed. In some places you have very simple production: one machine, no loading/unloading equipment, no automation. In this case machine has to be simple, software has to be simple and I needs only to push the button and take part out. But, the more automation you get, the more complicated it becomes and then the software has to be even more clever. It should prevent unexperienced operator’s mistakes.” (Manufacturing C)*

Although Prima Power is currently able to offer powerful and complicated software systems, there is a big challenge to implement them in customers’ factories for a simple reason. Customer company C as well as many other companies are still using old Prima Power machines. Comparing to the new and advanced machines, their possibilities and functionality are limited, consequently, the old software is not so advanced as a new one is. Even though customers would like to experience up-to-date software system solutions, they do not have an opportunity to connect old machines to new systems. It makes sense to update old software to newer versions, inform customer about the new possibilities, and encourage them to update functionality of the existing equipment:

*“We have different machines – some of them are old, from Finn-Power, some are from Italy and those machines are not yet connectable to the software. They are old versions; they do not belong to new generations. But, the idea that lies behind it – is how it can work in best conditions. For example, when the customer makes an order, the system takes care if it and makes the production plan from beginning to the end. It is not that simple but the idea worth it, delivery time can be shorter. We are using this kind of system, we have the production planer management system, ERP. But the machines are not inside it. We cannot connect them to this system.” (Manufacturing C)*



Trust in the company refers cooperation in general terms, because there is a constant need to stay in contact. The reasons vary from ordering new systems of updating existing. Since the dynamics of the market are more agile than the machinery lifetime, the need to update equipment arises periodically. Updates are seen as separate projects at the same level as purchasing because they start with initial communications and explanation of needs; after that Prima Power technicians work on the solutions and it satisfies the requirements, the improvements are implemented in the reality. A lot of communication, mutual understanding and certain skills are required to handle similar projects successfully. Customer company C believes that due to historical background, years of cooperation and embeddedness of actors in the network, they have gained trust in the company and see Prima Power as a reliable product/software supplier:

*“It is our relationship. First, we start the conversations about what we need, then Prima offers us the solution and then we start from there. Products are not so much customized. If we are talking about updates, you can have new options to your machine, you can improve old machines. If we are talking about new machines, you can order specific options you need. It depends on the needs, costs, if it is doable. But we have the history and we are located close to each other. We have good relations; we know each other quite well. So we can work together very good.” (Purchasing C)*

Service construct of trust refers quick responsiveness of Prima Power service support representatives. Threat of unexpected breakages may cause negative consequences on manufacturing processes and orders delivering. Although it is difficult to avoid breakdowns of the machines or faults in the software, the knowing that they will be fixed as soon as possible by either local engineers or Prima Power representatives, reduces the risks of great losses and consequently – increases the level of trust in the supplier:

*“Most of the problems that happen to the machines are mechanical and our operators can fix quite a lot of things by themselves. If they cannot fix it or if they need some advice, they call the correct person from Prima Power who either give instructions or send a technician. I think this system works very well. They are very responsive. At the moment, I think that the service is very good.” (Engineering C)*

Communications on the network level of relations is an important tool to keep relations alive. It often happens that informal act of communication are neglected due to overwhelming tasks of everyday routine. However, keeping constant contact makes relations alive and consequently – increases customer loyalty with the supplier and level of commitment – willingness to maintain the relations:

*“Communications keep the relationships up and active. Most of PP customer call when they have a need. And when they have a need, they are always in a hurry. Of course, I also do it, but besides this it is important to stay in constant contact - you can call and tell some news or anything so that the relations are alive.”*  
(Purchasing C)

Speaking about formal communications, their role is as important. On one hand, customer company C is interested in receiving the professional information about the market dynamics, competitors’ actions or new possibilities for business development. On the other – every new portion of information serves as an additional link between customer and provider and contributes in this way, to sustaining the quality relationships. In order not to be intrusive, messages should be short but informative, simple but catchy, easy to remember and valuable to the customers’ business:

*“We receive the newsletter and they are quite interesting. However, I think that it would be also nice to receive some more specified information. Now it is quite general – we were at the exhibition, we launch a new machine – that is nice but some information from economical side also or some improvement in the software or new features to the machines would be much better. Some kind of details – why it is important for our company. Some kind of catch! Not too deep but easy to understand and remember peace of interesting information to increase the hunger!”* (Purchasing C)

A significant difference in relations on the network level lies in background experience or history of the relations, which is twofold. First, they experience benefits from collaborative closeness, operational excellence and standardization of routine processes. These benefits optimize time consumption and physical resources during exchange episodes and contribute significantly to commitment and satisfaction with the provider. Second, having history behind the relations provides more possibilities, open new creative ideas and support from the provider to implement any ideas into reality:

*“First, I know the history behind and I know the machines quite well, so I think we can do more things than somebody else can. But in general, good service, fast response and quite good, big organization in general, location are the main benefits.” (Manufacturing C)*

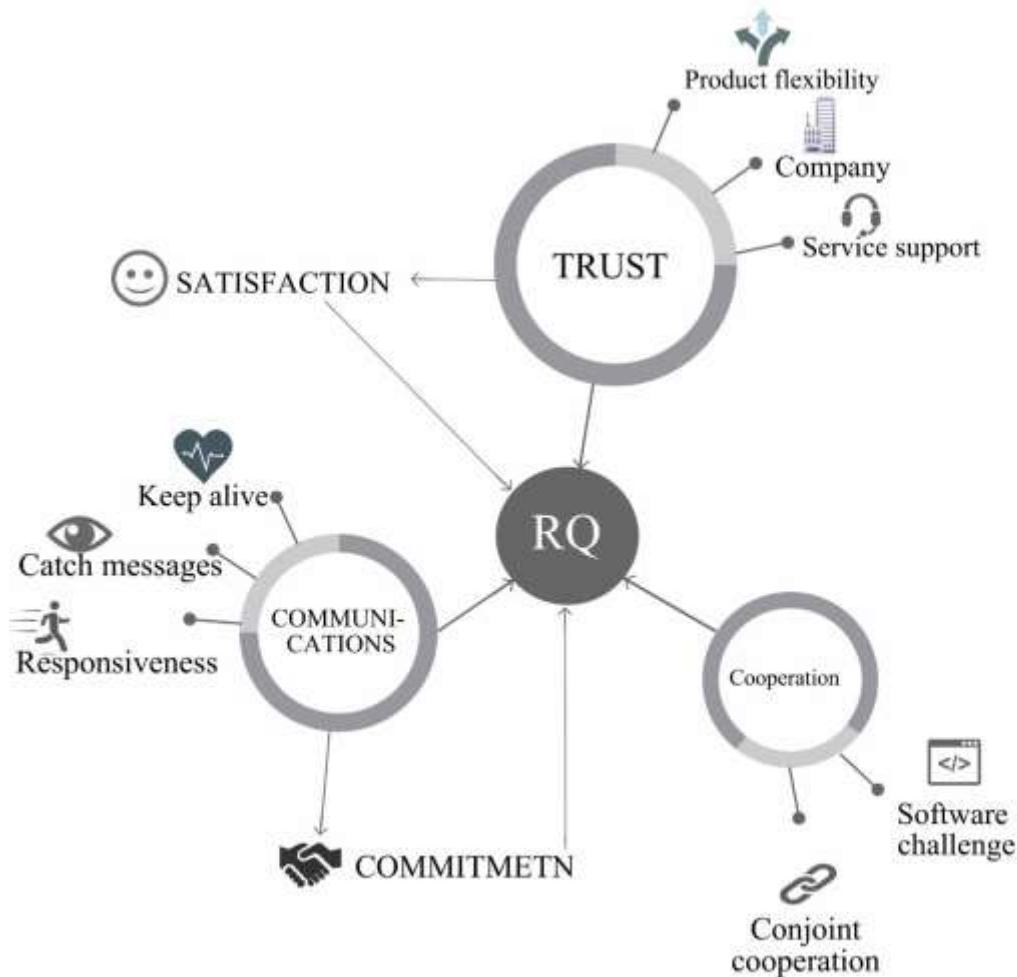
Summing up the company C analysis, due to flexibility of machinery, quick service support, developing software possibilities and constant communications with Prima Power representatives, cooperation can be characterized as a quality relationships, however, there are certain areas of current cooperation and some future perspectives that need improvements:

*“I think there is no reason not to keep them. Yes, we are going to keep the relationships in the future.” (Purchasing C)*

#### 4.1.3.1. Summary

Network level of communications can be described by the following characteristics that are most valued by the customer: trust, communications and future opportunities (Figure 19). Trust in the relations can be developed through three areas of activities. First: flexibility of the product, which implies an opportunity to modify machinery functionality according to customer needs based on the dynamics of the market. Second: reliability of the supplier company, meaning its development direction, values and positioning as well as strong brand name. Third: service support at its best should be quick, responsive and committed to help when the need arises.

Although communications in business networks are bilateral, initiative from the supplier side is highly appreciated by customers. Moreover, permanence of contact, both official and unofficial is highly required to keep the relations alive. This can be achieved by providing short but informative messages related to the industry or machinery and keeping informal communications regular. When two partners are losing the contact between them, it requires more costs and efforts to restore them rather than to keep the relations alive.



**Figure 19.** Product value characteristics on the network level of interactions.

Finally, due to advanced knowledge about the product and joint efforts that collectively embody the power to achieve personal and organizational goals. New horizons can be reached in either productivity, functionality, new areas of application, sustainability or design. In other words, an abundance of new opportunities appears and it is a weighty benefit of relations on the network level.

#### 4.2. Cross-case analysis

The cross-case analysis examines the dynamics of values that change during episode, relationship and network levels of interactions. During the interviews it has been noticed that people that are responsible for certain functions, emphasis the values that

are related to their area of activities. Thus, manufacturing personal is interested mostly in operational facilities and technical capabilities of the equipment, while engineering staff is more concerned about the service support quality and prompt response of Prima Power service representatives. In contrast to these, purchasing people or usually decision makers highlight the feeling of trust in technology, support, people and communications. For that reason, perception of value system evolutions is studied separately for manufacturing, engineering and purchasing personnel. The results are presented in the following three sections.

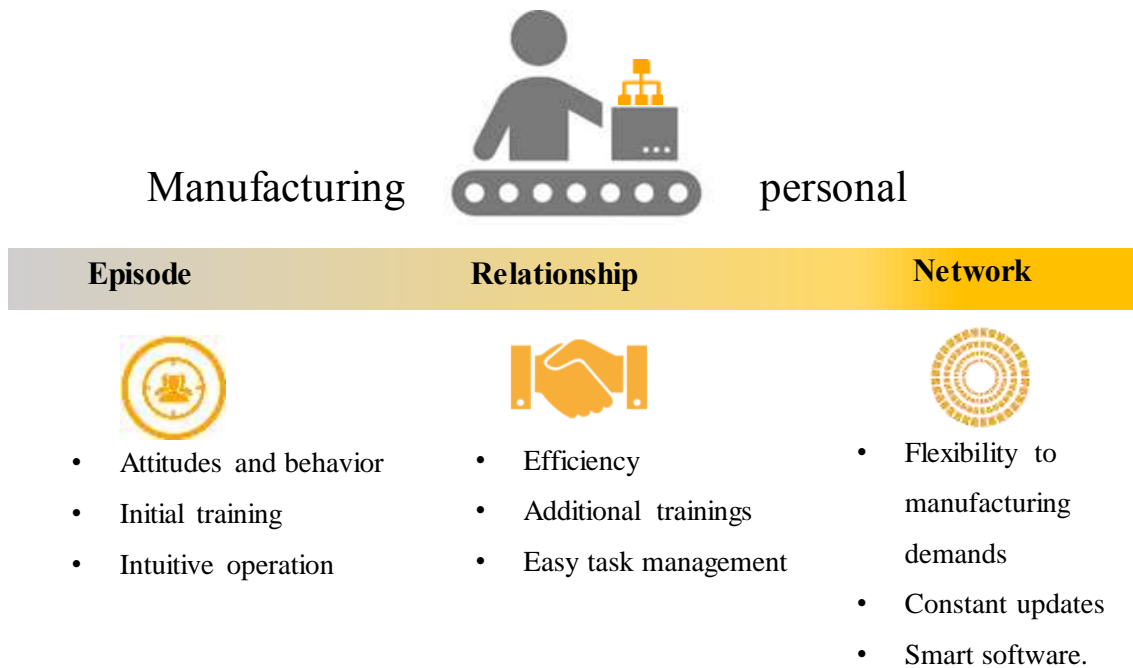
#### 4.2.1. Value system evolution. Manufacturing personnel

Since on the *episode level of cooperation* there is no enough experience with the machinery of the newly chosen brand, manufacturing personnel is induced to rely on the performance of new equipment based on the available technical and functional characteristics. While operators are getting used to the new machinery, there are other aspects of interaction that influence their opinion about the new supplier. They refer to attitudes and behavior of supplier's representatives. If they show interest in their customers' performance, if they are easy to reach and open to discuss issues not only with top management but with other workers also, it will enhance customer loyalty, adherence and perception in general.

Big-scale and expensive equipment require an attentive supervision during installation processes. One of the interviewees has reported a case when during the installation of a machine from a new supplier (other than Prima Power) one detail was missing. Due to the fact that there was no supplier representatives and moreover, there were not replying upon the requests, not only the installation, but the whole manufacturing process at the factory was terminated. This situation negatively affect customer's willingness to cooperate for future purchases. Even though the technology of the equipment was satisfactory, neglecting urgent fault reports is not a feature of satisfactory relations in the future.

Manufacturing personnel, especially with experience in the industry, understand the technological progress and modern solutions. That is why, they are highly interested in

working advanced technologies that make control of the machinery easy and flawless. What is more, user interface should be intuitive and understandable to perform new tasks without involvement of third parties into additional trainings. It is not surprising that operators value ease of operation on every level of relationship (Figure 20).



**Figure 20.** Value system evolution for **manufacturing** personnel.

After a firm has approved itself as a reliable supplier and interaction episodes transform into relatively constant *relationships*, the system of value change as well. When an operator has gained some experience with particular machinery, he can judge about productivity and efficiency. Since he is the one responsible for the manufacturing of the details, it is important to realize the adequate capacity and thus performance of the equipment. Moreover, confidence in its reliability helps to plan the manufacturing process and stick to the timeframes.

Although modern technologies involve a lot of automation so that less experienced operators are able to run the machinery, an extended knowledge is needed to modify or implement new tasks and thus – broaden the area of operation. If operators have knowledge, they have endless possibilities. Usually, after working with one machine for a certain amount of time, operators understand availability of these opportunities,

however, they do not know enough programming to use the opportunities and implement their ideas in reality. That is why these operators are interested in additional trainings provided by Prima Power to increase their qualification. The trainings will give them a chance to expand the scope of production, increase offering to their customers and even attract potential ones.

When relationship spread to a *network* level and operators have enough experience to modify the operations, they want particular features of their equipment. Usually the features are unique and thus are not included in the standard machinery provided. The ability of a firm to provide particular features makes the company a partner rather than just a supplier. That is why the operators in the network are looking for software updates and new features brought by those updates to maintain competitive and efficient manufacturing process.

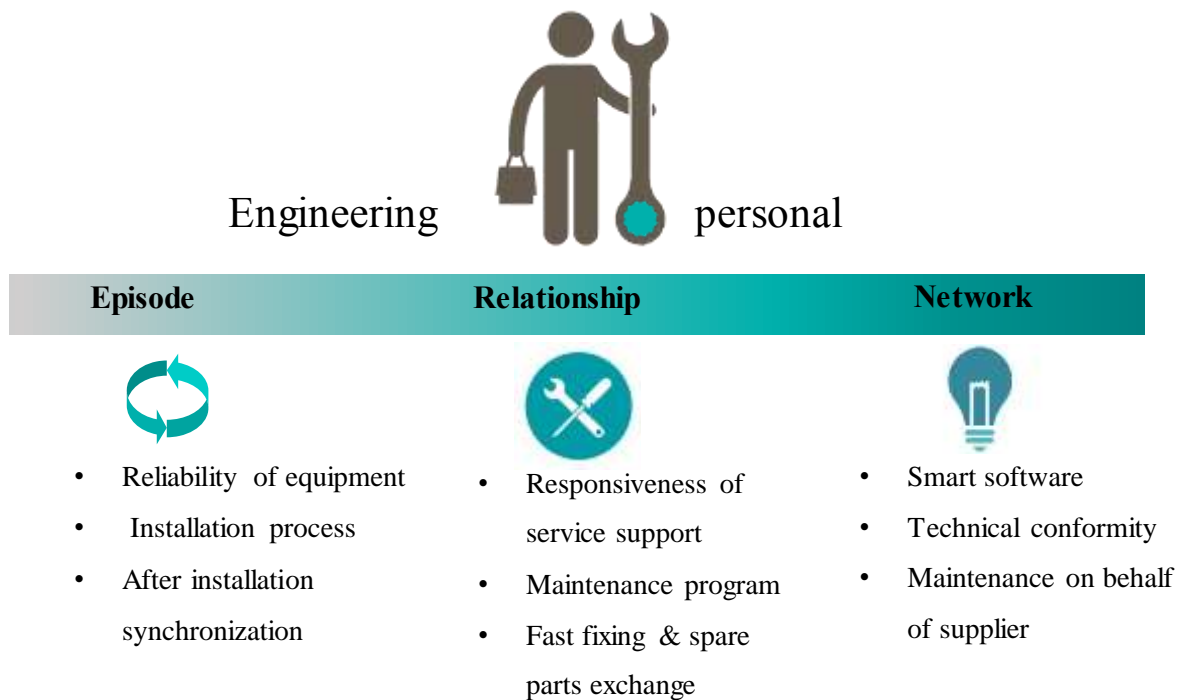
#### 4.2.2. Value system evolution. Engineering personnel

Engineering personnel, responsible for provision of equipment condition, maintenance and technical related problem solving play import role in evaluation of supplier's technological competence in their production place as well as in the industry in general. This knowledge defines the choice of new suppliers and thus – influences the decision making process. Interviews with engineering personnel helped to reveal the values they appreciate the most and they change with the development of buyer-seller relationships.

During first *purchasing episodes*, most of the attention is concentrated around installation process, which is very serious. It can be compared to a transplantation operation: one machine needed to fulfill the manufacturing process has to be transferred from one place to another, physically installed and “mentally” integrated in the software system of a local plant. Therefore, not only implementation is important, but also after installation synchronization to make sure that the new piece of equipment has naturalized in the new environment.

In spite of the fact that modern technologies are far more improved than, for example, a decade ago, it is impossible to avoid breakdowns in machinery, faults in the software or

any other unexpected shortcomings. Besides this, engineering personnel on the *relationship level* of interaction is busy with spare parts exchange and scheduled maintenance. In order to keep the factory in proper running order, all service related operations have to be standardized. This will help to provide efficient and in time service processes and guarantee high performance of the production in general. There are clearly defines requirements to the supplier that contribute to operational excellence of manufacturing process. They include fast and acting feedback of service support team, urgent repairmen and spare parts exchange on request and sufficient maintenance program developed by supplier engineers to reduce the risk of unexpected breakages to minimum (figure 21).



**Figure 21.** Value system evolution for **engineering** personnel.

If on the relationship level the main condition of success was service quality, the *network level* engineers value innovative technology ideas the most for the next reasons. As reported by one of the interviewee, some of the breakdowns happen because of wrong actions of unexperienced operators. To prevent this, machine software should be smarter than unskilled people to prevent foolish mistakes that can be dangerous for either the operator or the production routine. A software with different levels of access



to machines functionality could solve this problem. Moreover, this idea can attract other customers and differentiate Prima Power's offer.

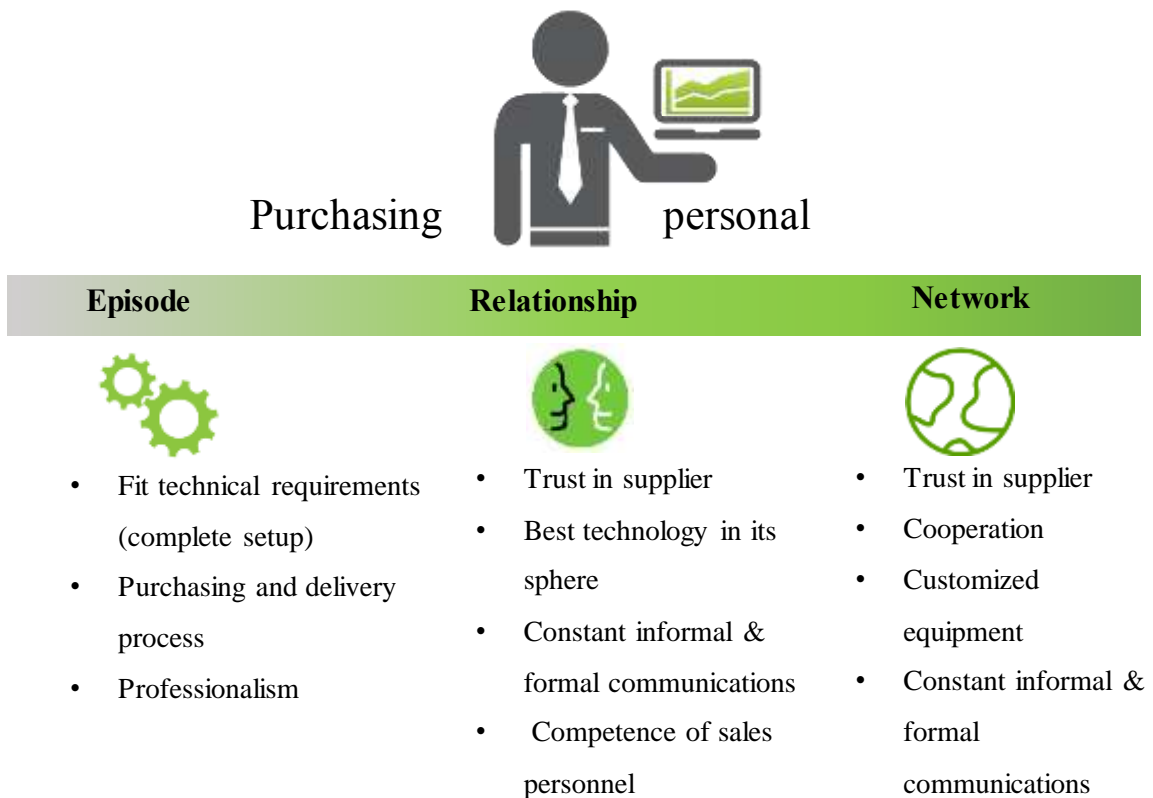
Another need for technology innovation lies in combination of cooperation intensions and specific requirements of customer's business. When a company is working with the same machinery for decades and knows its construction in excellence, than people can define its capabilities rather than machine defines capabilities of people. At these point representatives of buyer and seller companies meet together and start discussing whether existing machine parameters can be modified or whether new functions can be introduced to next generation equipment. This is where cooperation starts and brings benefits for buyers, sellers and other actors in the system.

#### 4.2.3. Value system evolution. Purchasing personnel

Purchasing personnel is in charge of choosing the right supplier that will be able to provide the needed technology on one hand and will be easy to cooperate – on the other. Although managers listen to opinions of the operators and engineers, they hold the most responsibility to make final decisions. There is no doubt that every purchasing manager strives to find the best supplier with reliable equipment, smooth delivery processes, low prices, adherent sales people and so on; however, during the interviews certain values that positively influence and motivate managers to accept the offer have been revealed.

Thus, during *episode* interactions, the number one criteria mentioned is to fit technological requirements to set the desired production system in compliance with current market and customer needs. However, it is the reason that we can see on the surface, there is one thing that lies in the heart of any relationships, especially in business-to-business context – it is trust. The feeling of trust in the supplier is typical for every manager, but it is manifested in different things on different levels of relationship (figure 22). In the beginning of relationships, managers are looking for values that will proof confidence in this supplier over years. This is professionalism in managing everyday issues and quality of communications – both content and the way in which it is presented to the customer. If these options are supplemented with smooth and

flawless purchasing, delivery and installation process, the customer will be assured in accuracy of his choice.



**Figure 22.** Value system evolution for **purchasing** personnel.

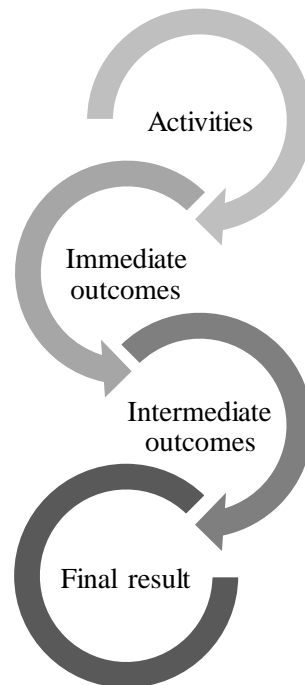
Having obtained some experience in cooperation with a supplier, customers begin to realize consciously that trust lies in the base of mutually beneficially relationships. They also comprehend that being in *relationships* means not just knowing each other for many years. Relationships have effect only when both sides contribute to them, keep contact and try to appear useful to each other on a constant base. That is why managers were mentioning interpersonal contact and industry related information exchange as important features of collaborating firms. Although it sounds pretty simple and obvious, people are usually getting too busy in their everyday routine and tend to neglect keeping in touch with their partners regularly, what negatively affect the quality of their cooperation.

Speaking of the partners in the *network*, the value system remains the same – relations based on trust with involvement of constant communications, adding shared vision of

business conducting principles, future development and common investments in the equipment, designed by compound efforts.

#### 4.3. Building the logic model

Logic model as an approach to case study evaluation has gained recognition in recent years (Yin, 2009: 149). It provides the researcher with an opportunity to trace relations between variables over an extended period of time by matching repeated cause-and-effect sequences of actions linked together. The algorithm of building logic models lies in arranging events in cause-effect pattern where a dependent variable at an earlier stage becomes an independent variable during later stages (Yin, 2009). Joseph Wholey (1979) explains the process by a simple intervention example (figure 23). Thus, an anticipated intervention implies certain activities with their immediate outcomes, which in turn produce intermediate outcomes, which later on influence ultimate or desired results.



**Figure 23.** Logic model process (adapted from Wholey, 1979).

Applying given algorithm to Prima Power case analysis, the intent is to receive a scheme explaining how successful relationships in business-to-business context should emerge and evolve based on customer preferences. Customer preferences include their

positive experience as well as desired actions they would like to notice from their suppliers. The derived scheme or logic model will serve as a guide to manage cooperation with customers in a way to develop quality business relationships. Although the outcomes are aimed on maximum result (how to develop tight, long lasting and mutually beneficial relationships with customers), it does not mean that Prima Power should undertake this scheme towards every customer. They have the right to decide which firms should be treated as potential partners or which firms should remain on the relationship level, based on prevailing customer portfolio structure. What is more, understanding of relationship-building factors helps to develop individual approach to every customer immediately (figure 24).

#### 4.4. Explaining the logic model

The logic model was built upon the results of within- and cross-case analysis. Taking into consideration the fact that selected customer companies represented value system characteristics on different levels of relationship, the compound result showed value system characteristics over an extended period of time. What is more, compound results provide an opportunity to place activities in causal order that will lead to either trust, commitment and satisfaction in final result. Thereby, logic model as an approach to interpret empirical data, has clarified two issues. First, it justifies the role of secondary dimensions of relationship quality as predecessors of trust, commitment and satisfaction concepts. Second, the compound structure of the value system indicated which particular actions entail customer's satisfaction, confidence and willingness to keep relations with the supplier, which indeed address the quality of business relationships.

##### 4.4.1. Predecessors of trust

As reported by every interviewee without exception, trust is the most important factor of long-lasting relationships in business context. This notion embraces a variety of aspects including trust in the company, trust in people, trust in the technology, etc. It was not easy for participants of the research to clearly describe the feeling, how does it emerge;

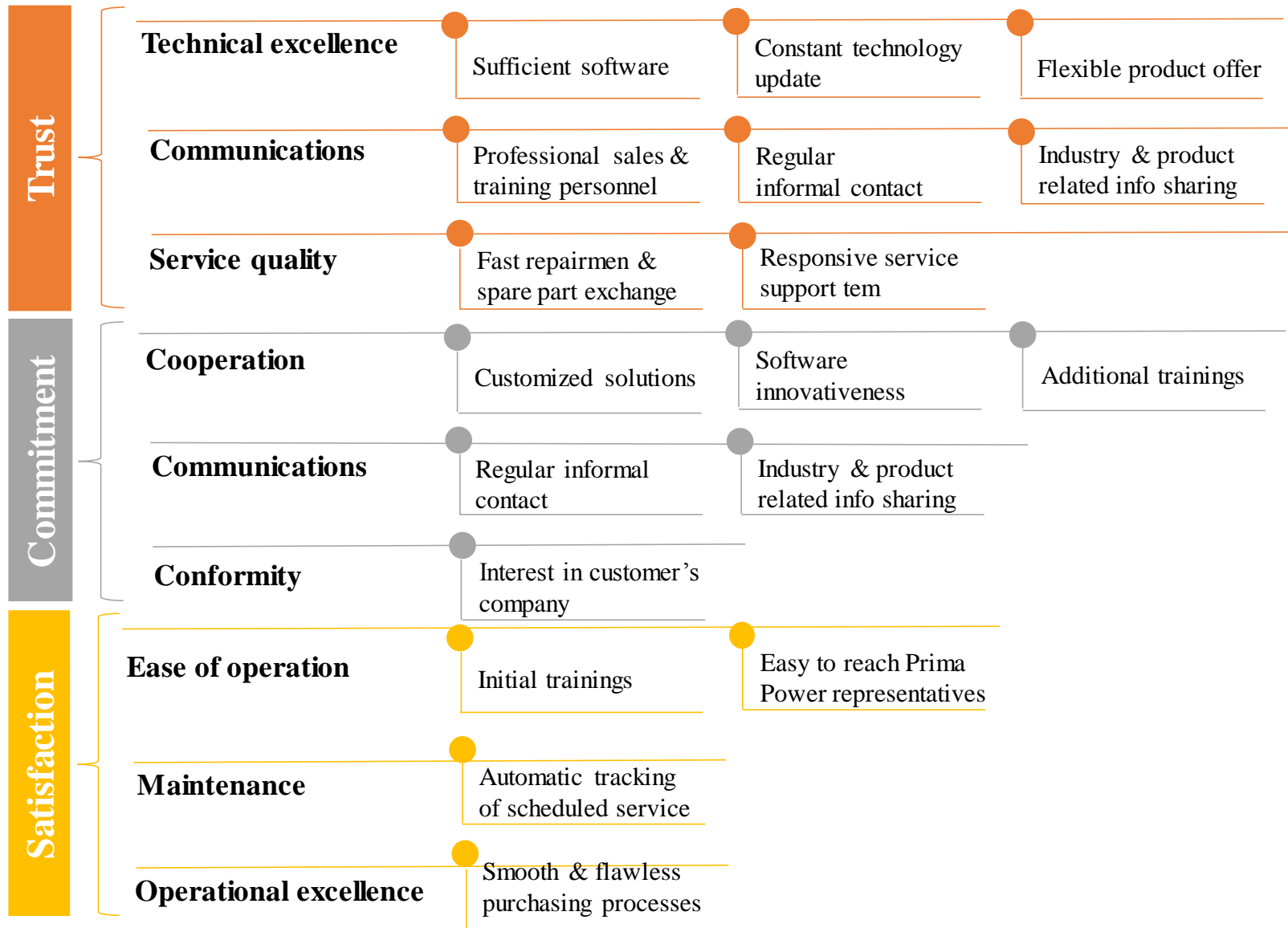


Figure 24. Value system. Logic model

however, after an extended data analysis, trust-forming factors have been defined. They include **technical excellence, communications and service quality**.

Technical component is the main concern when it comes to choosing the supplier because it is the initial object of exchange. Including the fact that a purchase of metal processing machinery is a long-lasting investment, it should fit certain needs, which are common for every company besides minor technical requirements. First, in today's progressive technology environment, it is difficult to keep production facilities up-to-date in every location. For that reason, the role of software is getting more distinct because software updates do not involve physical intervention but can significantly improve machine functionality. Thus, supplier firm efforts to keep operation systems updated bring numerous benefits to the customers on one hand, and proves its technical proficiency – on the other. Second, customer base of industrial machinery manufacturers is diverse, including representatives from different industries starting from domestic appliances and finishing with aerospace construction. This means that technical requirements for every company are unique, consequently, a firm should be able to provide unique solution fitting to every customer's conditions. It is well known that standardized offers in business-to-business sphere tend to stay in the past; however, it is still important for a supplier firm to show its interest in customer's business, especially how to improve it rather than to sell the required machines. Customers will value such attitude because according to them, price is not the most important thing, but a reliable supplier – is.

Communications play a very important role in comprehension of the sense of trust. To start with, good communications imply professionalism of sales and training personnel. They have direct contact with customers and thus – act as representatives of company's image, positioning and quality. On early stages of cooperation, customers evaluate professionalism of personnel and equate it to the quality of other aspects including technology reliability, service quality. On later stages of cooperation the task of communications dimension is to keep constant contact with customer regarding both formal issues and informal interpersonal communications.

Service quality ensures flawless manufacturing processes and thus – high performance of customers' business. It is impossible to avoid any kind of repairs or spare parts exchange, but it is possible to improve maintenance of service issues. According to customers' apprehension, service quality implies responsive service support team and fast mending or spare parts replacement. Customers confess that they depend on the supplier to some extent in terms of maintenance and that is why they seek confidence that minor breakdowns will not cause scale problems – they want to trust supplier's support.

#### 4.4.2. Predecessors of commitment

Commitment in business relationships is not simply a desire to be a customer of some company because when investing in industrial equipment, a company automatically becomes a customer of the firm at least for the next ten years. Commitment in given conditions means involvement in relationships, a willingness to participate in as many conjoint projects as possible. This phenomenon can be better described by the word *engagement*, since it is manifested in details rather than general beliefs. There are three categories that establish commitment in buyer-seller relationships: **cooperation, communications and conformity.**

Cooperation implies conducting any activities that involve contribution of both parties. In business relationships, these activities fall under three categories: development of improved solutions, software innovations and additional operator trainings. Although cooperation is typical for partners in the network, conjoint activities towards setting the best fitting solution can also happen on the initial stages of interaction. On behalf of the supplier firm, involvement in similar projects can form a fruitful base for research & development (R&D) opportunities. The interest of customer firm lies in receiving individually designed manufacturing system and having an appropriate provider when the need for expansion appears. In the process of working with equipment on the daily basis or while participating in extended operator training, companies can recognize room for improvement that they would like to integrate in existing equipment. By cooperating with the provider's development team, most of the ideas can be

implemented either as a software update or in the next generations of physical equipment.

Communications are needed to maintain the relation alive. Both official meeting, participation in the related exhibitions or customer events as well as regular interpersonal connections will positively influence level of commitment between partners. In order to enable ease of contact, it should be convenient to reach supplier's representatives and always have them happy to talk to the customers on various topics related to either machinery or software, market in general and competitors in particular, etc.

Conformity as a step towards commitment implies mutual interest between the partnering firms. Corresponding activities can be found in the previously mentioned customized solutions development, flexibility in routines and providing services with the aim to keep positive mood while work towards the same end.

#### 4.4.3. Predecessors of satisfaction

Satisfaction in marketing literature refers to meeting or preferably exceeding customer expectations. It is hard to distinguish clear determinants of satisfaction as fact, because it comes naturally when technical, service and communication requirements have been satisfied. In context of relationships in metal processing market, satisfaction is associated with additional benefits to receive, such as **ease of operation, maintenance and operational excellence.**

Besides user-friendly intuitive interface, customers appreciate the possibility to receive introductory training. During training sessions, operators as well as engineers have a chance to familiarize with the new equipment, its particular features and get acquainted with supplier's representatives, make contacts and use them for future needs. It was repeatedly mentioned that company representatives have to be open and easy to reach on emerging issues. In some companies there is a limited amount of people who can contact the supplier, which makes this process more complicated and time consuming.



Maintenance programs are the scheduled service checks that minimize the risk of unexpected breakdowns to minimum with the aim to avoid costly consequences. Maintenance programs are developed by supplier's technical specialists and thus – can guarantee program's reliability. Usually customers underestimate their necessity at a first glance and treat them as waste of money; however, those companies that have assigned to maintenance programs were satisfied with the results, especially noticeable in the long run.

Operational excellence means flawless and in time delivery, installation and after installation routines. It seems to be a straightforward task; however, customers often face problems caused by inattentive task performance, not professional staff or third parties failures. Companies, trying to withstand competition on a dynamic market should dedicate more attention to quality of everyday routines. Smooth and flawless purchasing processes contribute significantly to customers' feeling of satisfaction with the choice of suppliers.

## 5. SUMMARY AND CONCLUSIONS

This concluding chapter summarizes the overall research process starting with evolving of the research problem, approaches to investigate it and providing answers to the research questions. After that, theoretical and practical contributions are discussed. The paper finishes with dimensions, in which the research is limited and proposition of possible ideas for future research in the related sphere.

### 5.1. Summary of the research

At the starting point of this research, the intent was to gain in-depth knowledge in business marketing theory and apply them in real life conditions. Literature review pointed at gaps in accomplishment of relationship quality literature, which this paper attempts to fill. Thus, the aim was to investigate how a firm should organize value creation and delivery processes that lead to establishment of successful business relationships. Three consequent objectives to guide the research have been defined. First, to study and to analyze existing and desired value drivers in buyer-seller relationships. Second, to reveal predecessors of trust, commitment and satisfaction concepts by analyzing customer behavior, preferences and perceptions. Finally, to justify the role of secondary dimensions of relationship quality as predecessors or qualifiers of trust, commitment and satisfaction constructs.

Investigation of the research problem was done on the example of Prima Power Oy, what defined the qualitative nature of research design. More specifically, single and embedded multiple case study analysis composed the content of empirical section, where single case represented Prima Power as a supplier of industrial metal processing machinery and embedded multiple case study embraced three customer companies of Prima Power. The unit of analysis was business relationships, outcome of which was to reveal causal relationships between variables in the value system. For this reason, the phenomenon was studied from multidimensional prospective and passed three levels of analysis.

Results of the study are interpreted in form of a logic model presenting a clear structure of value attributes or consequence of activities that lead to gaining trust, commitment and satisfaction which are indeed components of relationship quality.

## 5.2. Theoretical and practical implications

Combining different theories as an approach to investigate the research problem can reveal unexpected results that might appear useful for further theory development. In this case, by combining business relationship and product value theories, the following theoretical contributions have been provided.

First, it has been proved that role of secondary dimensions of relationship quality is vitally important on the way to develop successful business relationships, because they are qualifiers of higher order construct of relationship quality – trust, commitment and satisfaction.

Second, viewing of value creation process through the lenses of business relationships (in particular – three stages of relationships development: episode, relationship and network) is characterized by a capability to investigate relationship building process over an extended period of time regardless of cross-sectional time horizon. Moreover, engaging different points of view on value delivery process (according to the roles in buying center: purchasing, engineering and manufacturing personnel) into data collection process ensured mention of all potential value drivers that play role in customers' perception of product value.

Practically, the research contributes to understanding of the prevailing value system as well as generation and development of relationships with customers. This knowledge entails numerous consequences. For example, it can lie in the base of improving existing interaction routines and build communication strategies for future. When comparing the logic model of value system presented in this study to the existing one, Prima Power managers can identify company's strong points that need more promotion and weak points that need more attention. Moreover, results of the study can be useful

to create customer portfolio structure and calculate costs needed to maintain contacts with existing customers. Finally, logic model can serve as an important marketing tool to adjust communication quality between departments within the company and externally to increase customers' awareness of Prima Power competence and professionalism.

### 5.3. Limitations and suggestions for future research

The paper is written in correspondence with existing instructions, which guarantee consequential and grounded research process on one hand, but imply certain delimitations – on the other. According to the existing limits, there are several possibilities to continue the research in given topic.

First of all, this is a cross-sectional analysis, that takes place in limited time frames. On the longitudinal level, it would be interesting to study influence of technological progress on actors' value system dynamics over time. Moreover, customer preferences dynamics with development of metal processing machinery market would deserve attention from both theoretical and practical point of view. Additionally, one can investigate how changes in customer needs shape software and machinery development, for example, “which new functions are needed in modern technology?”, “what is the future of manufacturing software?”

Time frames in turn defined the limited scope of theory and sample of empirical investigation. Thus, literature review includes directly related topics that are sourced from two vast theories: business relationship and product value theory. Combinations of composing elements helped to study the problem on system level to determine causal relations between variables. From theoretical point of view, suggestions for future research lie in deep investigation of mutual influence between product value and business relationships shaping processes.

In real life conditions relationship state was studied on the example of Prima Power Oy and three customer companies, included into single case project. Although a limited

number of firms participated in the research, it was still possible to investigate evolution path of given relationships and various points of view according to different roles in buying center. Still, the results are applicable in conditions, similar to the ones described in this paper. Predecessors of relationships quality constructs may vary from industry to industry and even within companies in the same industry due to individuality of any given firm. The same research design can be applied to similar companies in different context, for example, metal processing machines manufacturers in Asian, American or other European countries to compare the results and describe intercultural differences in creating and delivering of product value practices across the regions. The results of such study will provide strong interest for multinational corporations that have to align development strategies to local differences. The study can go deeper in the same conditions and study customers' perception characteristics with the aim to minimize diversity between intended and factual outcomes of interactions on behalf of business marketing capabilities.

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**APPENDIX 1. Interview questions.****Customer Company 1. Episode level.**

Name of company

Name of interviewee

Occupation

Place/Date

1. What are the most important value attributes that made you choose Prima Power as a software supplier?
2. What are the most significant costs (financial, time, energy, physical) you have sacrificed during transactions?
3. What benefits did you find more attractive in Prima Power offering comparing to the offering of other suppliers?
4. How often did you communicate with your Prima Power representatives during the purchasing process?
5. Are you satisfied with the product?
6. Are you satisfied with the additional aftersales services?
7. Are you interested in long-term mutually beneficial relationships with your supplier?
8. Is your supplier encouraging you to maintain relationships during your first exchange practice?
9. What benefits do you expect from having long-lasting relationships with your supplier?
10. What aspects of your communication you would like to improve (drawbacks)?

**Customer Company 2. Relationship level.**

Name of company

Name of interviewee

Occupation

Place/Date

1. What are the most important value attributes that make you stay in relationship with Prima Power as your software supplier?
2. Are you satisfied with the products and services?
3. What economic benefits have you gained in relationships with your supplier?
4. Can you compare communication with Prima Power to relations with other/previous suppliers?
5. Have your supplier helped you to gain competitive advantage or establish reliable manufacturing processes?
6. How often do you communicate with your Prima Power representatives? What is the reason?
7. Can you rely on your supplier?
8. Are you satisfied with relationships?
9. Are you interested in maintaining long-lasting relationships?
10. What aspects of your relationships you would like to improve/change?

**Customer Company 3. Network level.**

Name of company

Name of interviewee

Occupation

Place/Date

1. What are the cornerstone value attributes that make you stay in relationship with Prima Power as your software supplier?
2. What strategic benefits have you gained in relationships with your supplier?
3. Do you allow the possibility of sharing the resources or joint use of possibilities?
4. Does collaborative closeness contributes to reliability and safety in relationships?
5. Have you achieved some standardization in exchange operations?
6. What is the pledge of successful relationships? How would you describe the relationships?
7. What aspects of your relationships you would like to improve/change?

**Appendix 2.****STATEMENT OF ABIDING BY GOOD SCIENTIFIC PRACTICE**

**“I confirm that I have made this Licentiate thesis/Doctoral thesis by myself and that I have followed a good scientific practice. All the citations and quotations mentioned as well as all the references to the source materials have been reported completely and identifiable.”**

**Vaasa 30.10.2015**

**Mariia Kreposna**