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School of Business and Management

Industrial Marketing and International Business

Master's Thesis

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HOW CUSTOMER VALUE PERCEPTIONS CHANGE ALONG SUPPLY CHAINS: AN EXPLORATORY STUDY IN TOILET TISSUE MARKET

Supervisor: Joona Keränen

ABSTRACT
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Keywords: customer value perception, value creation, supply chain, pulp industry, paper industry, toilet tissue
Customer value perceptions of end consumers are rarely considered in business-to-business settings. This Master's Thesis examines how customer value perceptions change along toilet tissue supply chains in selected market areas and identifies drivers affecting to these changes. In addition, this study examines how well these identified customer value perceptions of toilet tissue are considered in pulp business by case company's sales personnel. The theoretical part of this thesis includes literature from supply chains, customer value and value creation in supply chains. The empirical part of this study employed qualitative case study strategy. The primary data was collected by using two online focus groups (n=30) and 5 in-depth interviews. The findings of this thesis show how customer value perceptions change because of not only the different value dimensions of the supplier and consumer, but also inside similar customer value dimensions, where the attributes creating this value differ between members in the chain. In addition, this study shows how some of the created value might leak from the supply chain when the upstream supplier's brand is not utilized along the supply chain. The business-to-business and business-to-consumer markets are currently existing quite separately in pulp and paper industry, where information about customer value perceptions are not shared between members in the chains. From the managerial perspective, these strict boundaries between industries should be destroyed, information channels should be developed, and suppliers' brands should be utilized in the supply chain in order to create best possible value for all customers in the supply chain.

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Kuluttajien arvohavaintoja ja toiveita huomioidaan harvoin teollisten yritysten liiketoiminnassa. Tämä diplomityö tutkii, kuinka asiakkaiden arvohavainnot muuttuvat arvoketjussa ja millaiset tekijät näihin muutoksiin vaikuttavat. Erityisesti työ keskittyy vessapaperin arvoketjuihin ja tutkii kuinka kuluttajan arvohavainnot eroavat valituilla markkina-alueilla. Lisäksi työ tutkii, kuinka tunnistettuja kuluttajan arvohavaintoja huomioidaan selluliiketoiminnassa case-yrityksen näkökulmasta.

Tämän työn teoreettinen osa koostuu kirjallisuudesta arvoketjuista, asiakasarvosta ja arvonluonnista toimitusketju- ja kuluttajamarkkina-ympäristössä. Diplomityön kokeellisessa osuudessa hyödynnettiin laadullista tutkimusmenetelmää ja erityisesti case-tutkimus strategiaa. Työn primääridata kerättiin hyödyntäen kahta online kohderyhmä keskustelua (n=30), sekä viittä syvähaastattelua.

Tämä tutkimus kuvastaa, kuinka erot asiakkaan ja loppukuluttajan arvodimensioissa eivät yksinään selitä muutoksia asiakkaan arvohavainnoissa arvoketjussa. Asiakkaan arvostamat ominaisuudet saattavat tarkoittaa ketjun eri toimijoille eri asioita. Työssä havaitaan myös, ettei esimerkiksi toimittajien brändejä ja toimia hyödynnetä kuluttajamarkkinoilla parhaalla mahdollisella tavalla, mikä voi vaikuttaa olemassa olevien asiakashyötyjen katoamiseen ketjusta. Yksi suuri syy tähän informaatio katkokseen on teollisen ja kuluttajamarkkinoiden vähäinen yhteistyö. Tästä syystä johtuen tätä yhteistyötä ja informaatiota näiden toimijoiden välillä tulisi parantaa.

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Lappeenranta, July 2017

Jutta Väätänen

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

Many product life cycles include phases in both business-to-business and business-to-consumer surroundings (Martelo et al. 2013: Kumar & Werner 2016). However, these business environments are often operating quite separately, where little information is shared about consumer value or benefits (Skippari et al. 2016). The in-depth understanding of value creation processes in the supply chain level in both environments helps firms to improve efficiency of their internal value creation processes (Wagner & Eggert 2016). Supply chains are working more efficiently when firms are sharing their information between business units and organizations (Barlow & Lee 2005: Soosay et al. 2012). The absence of shared information creates information clicks where the information is only shared between the closest members of the supply chain (Skippari et al. 2016). More fluent information flow will eventually destroy information clicks between business-to-business and business-to-consumer markets, when information about the market is shared through the whole chain, not only between closest members in the chain (Skippari et al. 2016).

The value creation process in the supply chain level is widely examined area in the business studies (e.g. Kohtandaraman & Wilson 2001: Soosay et al. 2012). Currently the focus has been shifting from the supplier centric view to consider customer’s role in the system where customers are described to be active value creators in the process (e.g. Matthyssens et al. 2016). As the importance of the customer is increasing in value creation literature, it is naturally crucial to understand customer value more broadly and widen the understanding from the direct customer to the customer’s customer value (Flint 2004: Kumar & Werner 2016).

In addition, the concept of supply chain has developed over the years (Seppälä 2014). Porter (1985, p.36) characterized that value chain is a concept describing all value adding activities needed to produce the product inside the firm. In recent years, the concept has developed to more cross-organizational direction where multiple organizations are considered in the value creation process (e.g. Gereffi et al. 2005: Gereffi & Lee 2012: Ali-Yrkkö & Rouvinen 2015). However, the focus in the supply chain research is mainly limited to consider different material and information flows (Seppälä 2014: Gereffi & Lee 2016). Even though supply chains and value creation processes are widely examined areas in business literature, there is a lack of research how these are actually linked together. More specifically, there is a research gap in understanding how perception of the value changes along the members in the supply chain (Wagner & Eggert 2016).

Toilet tissue supply chain is an example of a long supply chain, where most of the business processes and activities are implemented in business-to-business surroundings, but the final end product is mostly consumed by individual consumer (Paulapuro 2000: Metsä Tissue 2017). The consumption of toilet tissue is increasing worldwide and the demand for toilet paper correlates straightly to the increase of living standards and the country's level of hygiene. The annual market growth is worldwide around 3 % (FFI 2017). As the product is almost irreplaceable, the demand for toilet tissue reacts only a bit for economic fluctuations. However, the requirements for toilet tissue are developing, as the economical well fare is increasing in the market and more diverse products and even luxury toilet tissues are in demand in the developed market areas. The consumption of toilet paper does not only reflect the country's living standards and economic situation, but also the culture is shaping customers' needs. Due to these reasons, the preferences of the consumers are varying quite a bit across different market areas (Metsä Tissue 2017). Even though pulp suppliers have an understanding of what their customers, paper manufacturers, value, consumer needs and the final use purpose might sometimes be forgotten. Therefore, it is extremely important to examine these chains and study what these different chain actors are valuing and how customer value is changing along the chain in different market areas.

This thesis focuses on the end consumer and examines how the customer value perception changes along the supply chain. In order to gain an in-depth understanding on how customer value perception is changing along the supply chain, this study adopts a qualitative case study design.

1.1 Objectives and research questions

This study has three goals. The first goal of this research is to identify customer value perception of toilet tissue in selected market areas. This is examined by gathering data from tissue manufacturers about customer value perceptions of consumers and by reflecting this gathered information to the literature of supply chains, customer value, and value creation. The study will focus on two separate market areas, which makes it possible to compare these situations in different market environments. Since the research is conducted in cooperation with pulp supplier, it is especially important to examine which of these consumer benefits and values can be traced back to pulp production.

The second goal of this research is to examine how identified customer value perceptions are acknowledged in business of pulp supplier. This is done by interviewing professionals inside the company from Sales and Customership department. The aim of the interviews is to draw insights on how consumer value and benefits are considered and understood inside the case company and how well these needs go hand in hand with the needs of paper manufacturers. The third goal of this study is to explore how created value changes along the toilet tissue supply chain and whether to some created value is lost along the toilet tissue supply chain, or incompatible with customer desires. The research questions and objectives of this thesis are presented in table 1.

Table 1. Research questions and objectives.

RESEARCH QUESTIONS	OBJECTIVES
1. What kind of value consumers perceive from toilet tissues? a. How does the customer value perception of toilet tissue differ between selected market areas? b. How do the value perceptions change along the toilet tissue supply chain? c. Are there any mismatches in customer value perception between paper supplier and end consumer?	To identify customer value perception of toilet tissue in selected market areas, identify how customer value perceptions change along the toilet tissue supply chain and examine if some of the created customer value leak from the chain.
2. How are the consumer benefits acknowledged in the case company?	Examine, how end consumers are acknowledged in pulp supplier side

1.2 Structure of thesis

This chapter of the thesis describes the overall structure of the work and provides a brief summary of the content of the study. Figure 1 in the end of this chapter presents an overview of the chapters and describes the inputs and out puts of each section.

The first chapter introduces the background and motives of this study. After presenting the purpose of the study and setting the guidelines, the chapter presents research questions and objectives of this thesis. The chapter informs the reader about the overall concepts of this study.

The chapters 2 and 3 consider the literature review of this thesis. The second chapter examines the existing literature of supply and value chains in order to gain holistic understanding of the concept. In addition, the chapter will look more closely to challenges relating to the long supply chains, as one aim of the research is to examine how customer value perception is changing along the supply chain. The third chapter will review literature of customer value and value creation processes along the chain and will finally conclude the findings into framework proposal.

The fourth chapter will introduce the methodological side of the research. It will justify the decision and limitations of the study more closely, and provides over view to case study strategy and data collection methods used in this study. In addition, the research will introduce the case company and toilet tissue supply chains to provide more information for the empirical part of the thesis. The fifth chapter will focus on the empirical findings of this study. Final chapter of this thesis will introduce the conclusion of this research and present the answers to the research questions. This chapter will also present research's theoretical and managerial implications and finally suggestions for the future research.

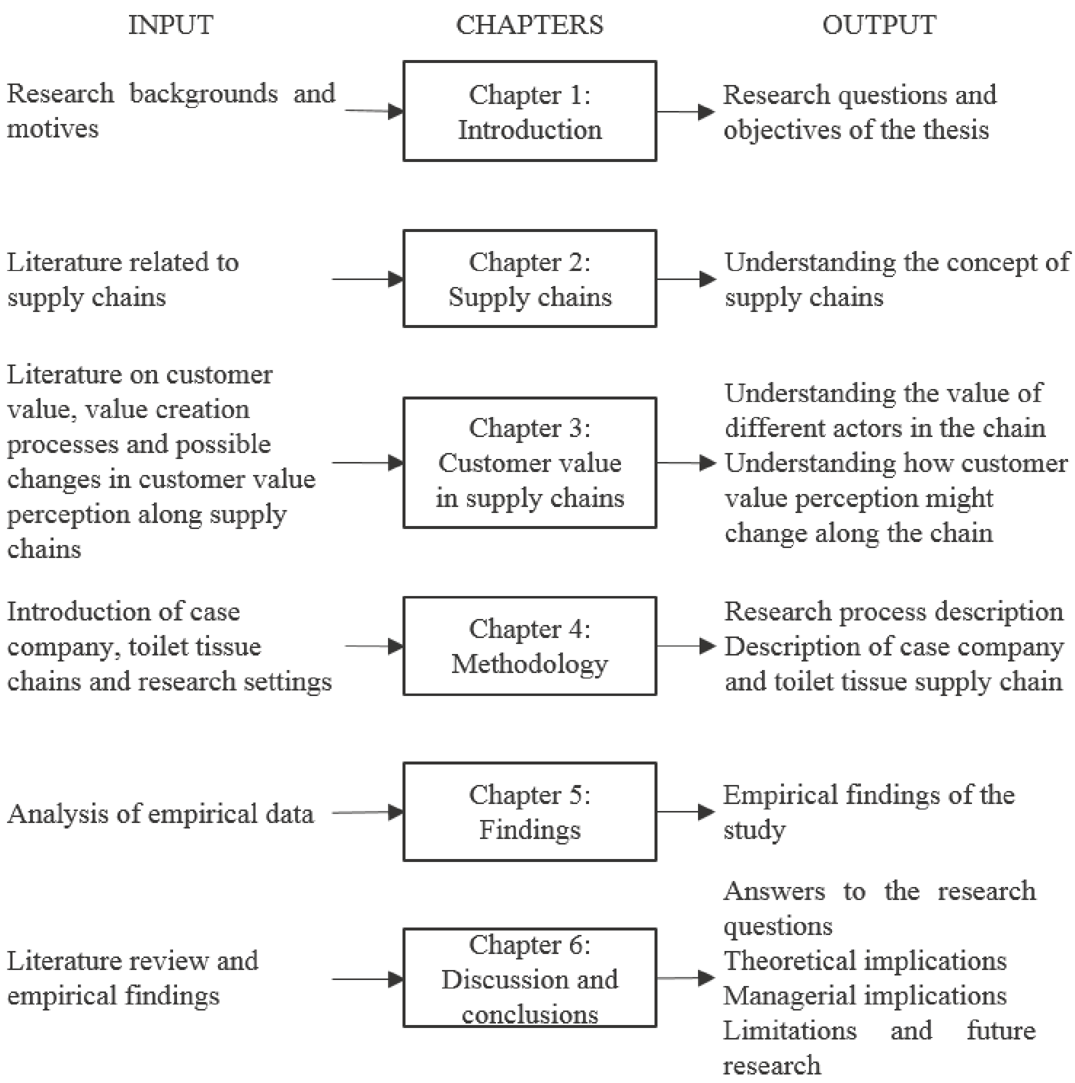

Figure 1.The structure of the thesis.

2 SUPPLY CHAINS

This thesis will discuss supply and value chains especially in the pulp and paper industry. The term “supply chain” is used to describe the situation where end product is produced through many different value-adding functions in co-operations with different manufacturers and suppliers in a presence of society and governance. In supply chain and value chain research, these concepts are sometimes used interchangeably in the literature. However, *supply chain* term is more commonly used in context where multiple organization and actors are considered whereas *value chain* term refers to firm’s internal activities (e.g. Porter 1985: Gereffi 1999: Al-Mudimigh et al. 2004: Ali-Yrkkö & Rouvinen 2015).

Porter (1985, p. 33) defines value chains in the following way: “The value chain disaggregates a firm into its strategically relevant activities in order to understand the behavior of costs and the existing and potential sources of differentiation”. Ali-Yrkkö and Rouvinen (2015) support this Porter’s view by noting that the value chain is “a composed of the entire range of activities involved in providing a product or service.” Also, Al-Mudimigh et al. (2004) support this view as they define supply chains as systems “where the customer value is maximized in well planned operations that are economically driven and will produce high quality delivery.”

On the other hand, the supply chain concept should be broader to consider also other perspectives than operational level (Seppälä 2014). Gereffi and Lee (2016) expand the supply and value chain concept by adding the governmental and global view to the system. The value chains take place in the global arena, where surrounding governments are affecting to the performance of the chain. Value chain captures all the value-adding activities. Value chains should be considered as multi operational systems rather than systems that consider costs and profits separately (Gereffi 1999: Gereffi et al. 2005: Gereffi & Lee 2012).

2.1 Characteristics of supply chains

Literature has variety of definitions to value and supply chains (e.g. Porter 1985: Al-Mudimigh 2004: Ali-Yrkkö & Rouvinen: Gereffi 1999). The definitions have expanded as the business world has developed more complex and international. In the modern world, the competition has shifted from the firm-to-firm level competition to more complex and brand owners are considered to be responsible for not only their internal supply chains, but more widely the whole supply chain of the product. (Lambert & Cooper 2000: Cristopher & Gattorna 2005: Fearne et al. 2012: Mishra et al. 2016).

Porter introduced the classical presentation of value chain in 1985. This concept focuses on the firm's inside activities, which create value for the customer. Each of these activities acquires investments, such as human resources, technology, purchased inputs and information, and will most likely create economical value. These value-adding activities are divided into primary and supportive activities. The activity groups can be seen from the figure 2. The primary activities are related physically to the created product. These activities are, for example, production of the physical product and sales, whereas the secondary functions are activities that support the primary activities by providing support, such as human recourses and technologies. (Porter 1985, p. 36-49).

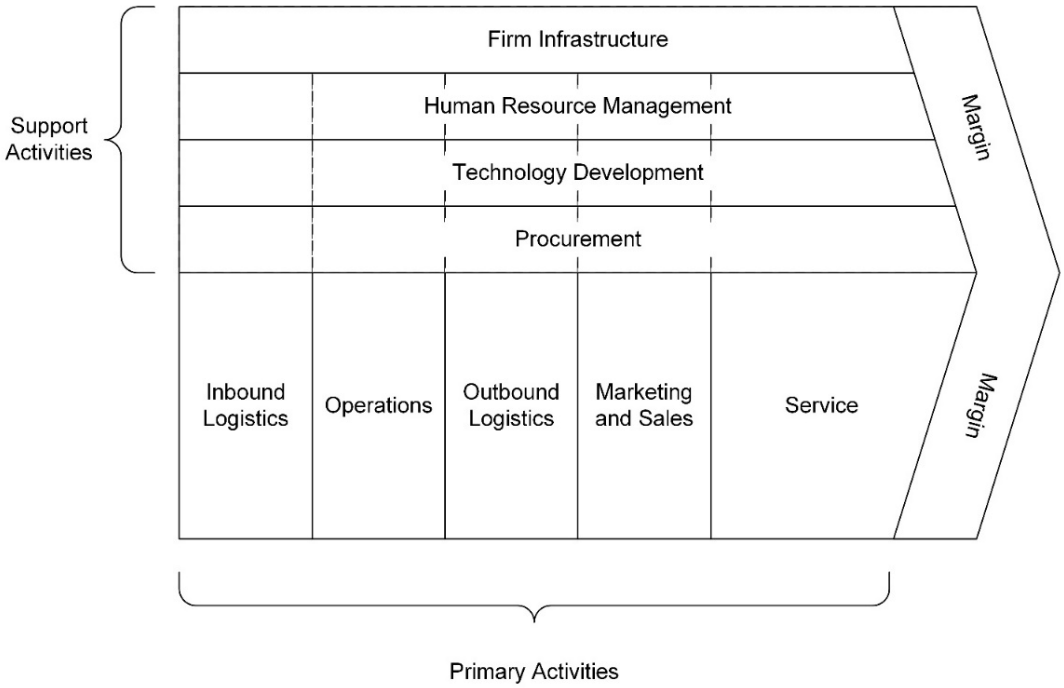

Figure 2. Value Chain (Porter 1985, p. 37).

In operational level, supply chains can be divided into four stages, which are *procurement*, *production*, *distribution*, and *sales* processes. (Fleischmann et al. 2002) The procurement stage includes processes relating to material supply and purchase. After this, the raw materials are regenerated into intermediate or finished products in production phase. The distribution stage naturally includes the transportation and distribution channels of the offering. Sales stage comprises processes like designing, pricing strategies and demand planning.

In practical terms, supply chains include different actors, such as suppliers, manufacturers, distributors, and customers. Actors are linked between each other by the information and material flows (Lambert & Cooper 2000). Evans and Berman (2001) have taken even more multi organizational perspective in their research. They have recognized different participant types in the chain by considering their relationship with the customer. These types are manufacturer/supplier, wholesaler, and customer. The actors are categorized into different tiers that demonstrate the actors distance from the customer.

Supply chain can also be divided into value chains and value delivery chains (Evans & Berman 2001). In this context, value chain is determined to be an activity based concept, where the value and benefits are created and offered to the customer, whereas the value delivery chain is more performed based chain considering roles and relationships of each actor in the chain. The more holistic view creates more complex supply chain model, which is demonstrated in figure 3. This model does not only list the value-adding activities, like in Porter's (1985) value chain, but the model describes the different actors and activities around the whole delivered value.

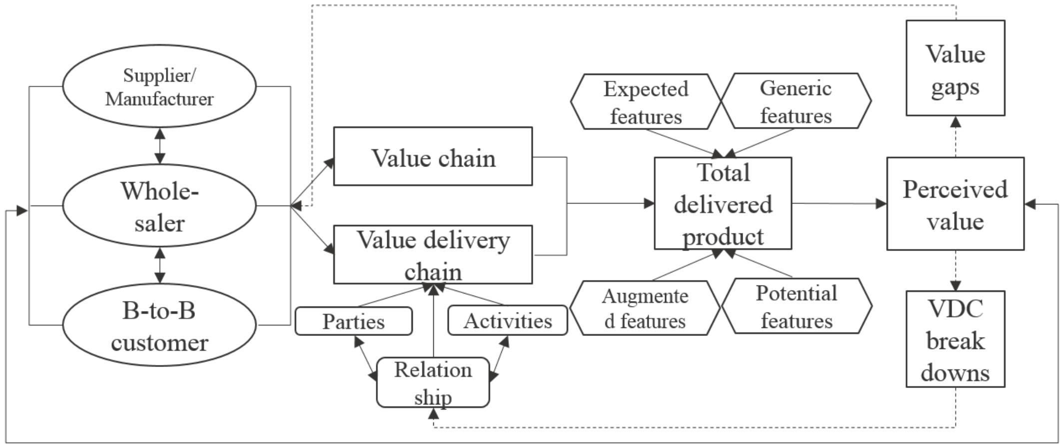

Figure 3. A holistic model of the value chain (Evans & Berman 2001).

Figure 3 introduces supply chain concept with the separate notion of the total delivered product (Evans & Berman 2001). The product characteristics are based on the research of Levitt (1980) and those demonstrate the multi-dimensions of the created offering. This model also considers the perceived value in the eyes of the chain. The basic idea behind the model is that the value gap exists when there is a miss match between supply chain goals and perceived value for the chain. If value gaps exist, some actors in the chain might have to be replaced. The supply chain is always determined by its weakest link. For this reason, the participants in the chain must be carefully selected and replaced if necessary.

As many industries are becoming more and more international, wider global perspective for the value chains is needed. Ali-Yrkkö and Rouvinen (2015) focus on the global value chains and the value creation in those systems. Based on the case study of 45 global value chains, the researchers confirmed that no generalization of one global value chain could be done. The chains are complex and heterogeneous differing not only between industries but also between firms.

The importance of relationships rises in the chain when multiple actors are considered in the supply chain. The relationships in the supply chain can be adversarial, semi-adversarial or partnership based. The type of the relationship depends mainly on the market and the goals of the supply chain. (Evans & Berman 2001). The relationships differ from each other between the levels of commitment. In the adversarial relationships, multiple raw material suppliers are used without long-term commitments. The price is the most important factor in those loose relationships. The opposite relationship type is partnership, where the total acquisition costs are considered, fewer suppliers are used and long-term relationships are seen as goals.

In the supply chain, the type of the relationship is not standard, but different relationships are acquired in the supply chain and in business overall (Jaakkola & Hakanen 2013). Different kinds of relationships are needed in business surroundings and partnerships should be formed only if the relationship benefits are higher than the costs of the relationship (Gadde & Shnehota 2000). Due to these facts, firms can form partnerships only with limited number of actors and many companies have to reduce their highly involved relationships between their suppliers.

Collaboration levels and governance are affecting to the value chains, as those bring different input flows to the chain (Gereffi 1994 p. 97). The government has huge impact to consumer purchasing habits and if those habits do not support governmental aim, firms might have to follow alternative strategies (Soosay et al. 2012).

2.2 Challenges of long supply chains

Understanding the possibly emerging problems in supply chains is important, as smoothly working supply chain is one of the key elements producing superior value for the customer (Wagner & Egger 2016). Current business trends force companies to build more complex supply chains and networks, which seems to create problems in the chains (e.g. Harland et al. 2003: Gereffi 2016). The wider and more complex supply chains are harder to manage, which will often create problems to management operations and operational tasks (Peck 2006: Hallikas et al. 2004).

In supply chain context, risks can be described as factors that cause discontinuity in information, material, or product flows along the supply chain (Peck 2006). Closer co-operation is driving companies to share many risks of their actions and transfer problems from the first link to the next. Many of the problems will be multiplied when the supply chain is getting wider (Hallikas et. al 2004). The idea of the supply networks and chains is, of course, to create benefits for all actors in the system. One managerial task for the firm is therefore to evaluate the profitability of the chain and minimize risks occurring in the system.

To better describe the possible problems of long supply chains, it is important to understand the drivers that increase the system complexity. Rising customer awareness and more demanding customers are driving the companies' offerings to be more complex. To better respond to these changing requirements, companies have to create more complex systems and longer supply chains to meet these new demands (Wagner & Egger 2016). The trend of outsourcing different activities is also creating more diverse systems inside the firms and in the supply chains. In addition, the trend of globalization makes the networks more complex as the companies and their activities are not strained in one specific country, but the activities in the supply chain can be spread around the globe (Gereffi 2016). The business channels are also changing as the e-business is gaining more share of the business every year. (Harland et al. 2003).

Hallikas et al. (2004) have recognized four risk types that create problems in the supply chain and network operations in supplier point of view. These problems are:

- Demand problems
- Problems in fulfilling customer deliveries
- Cost management and pricing
- Weaknesses in resources, development and flexibility

These problems concerning the demand relate generally to positive or negative changes in the market needs. Since the participants in the chain are linked together, changes in the market might reflect to many chain actors (Hallikas et al 2004). For instance, in tissue markets, the changes in the consumption of toilet tissue will eventually affect the demand of pulp as paper manufacturers needs for raw material change. Raw material producers must be aware of changes in both B-to-B and B-to-C markets for this reason. On the other hand, increased demand in the end of the supply chain does not automatically guarantee success for individual raw material supplier, as it still might be replaced with competitor. This will highlight the uncertain position of raw material supplier in the chain in certain industries and will increase the importance of strong relationships in the system (Soosay et al. 2012).

The second identified problem links closely to the changes in the demand as all suppliers must deliver needed offering to the next hierarchical level in given time and at desired quality (Hallikas et al. 2004). If the customer demand increases, all actors in the chain must be able to fulfill these increasing demands in order to retain their position.

The cost management and pricing operations create the third risk inside the supply chains. This refers to actors' ability to control their fixed and variable costs. In order to make the supply chains competitive, it is important to manage the costs in every step of the chain. (Hallikas et al. 2004). Again, suppliers and other actors might be replaced with a competitor, if the actor cannot full fill the demands created in the system. The changing market also creates its own pressure for the system, as the actors must adapt and change their offering and activities along the changing environment (e.g. Wagner & Egger 2016: Gereffi 2016). Therefore, it is important to follow the offering through the whole system.

In addition, Tang and Tomlin (2008) have recognize problems related to supply chain processes. These problems are especially influencing on firm’s internal activities. Well working supply chain is a key for increase of revenue, cost reduction, and asset reduction, but involves many problems. The longer and more complex the chain evolves the more vulnerable and slower responsive it might have. Researchers divide these emerging problems into five risk groups. These risk types are *supply*, *process*, *demand*, *behavioral* and *political* risks. These groups create problems inside the firm and might rise from the supply chain surroundings.

The supply risks can be subcategorized to cost, quality, and commitment risks. To face and avoid these challenges, organizations should use multiple suppliers to even out the price and quality variations. The time, in which companies are forced to be committed to the supplier, is called commitment risk. If the orders have to be made many months before hand and there are no possibilities to change them afterwards, buyer cannot react sufficiently to emerging demand changes in the market. The process risks are relating to the capacity, time and quality problems in the in-house operations and logistics (Tang & Tomlin 2008).

The demand challenges and risks are emerging in times when companies have widened their activities to other countries (Tang & Tomlin 2008: Gereffi 2016). In this case, the challenge of allocating resources is highlighted as the demand might differ between different market areas. Global supply chains will also increase the political risk as in the changing world political situations in different counties are varying from each other.

The more complex and wider supply chains are, the more relevant the behavioral the risk becomes. Basically this means that complex supply chains are harder to control. These risks might cause situation where the reaction time for changes is prolonged because these changes are harder to notice and manage (Tang & Tomlin 2008).

In addition to these risks, also the structure of the supply chain and especially the relationships in the chains create challenges in the systems. In external long supply chains, the relationships are affecting the supply chain functions (e.g. Soosay et al. 2012). The aim of all firms is, of course, to create best value for the customer and in order to achieve that, fluent flow of material and information inside the supply chain is needed (Barratt & Barratt 2011).

As Barlow and Lee (2005) mention, responsive and dynamic chain is needed to create superior offering for the customer. Fluent information flow is not easy to achieve, however, since the cooperation and openness level of relationships are varying inside the long supply chains. More fluent information flow is extremely important, as it enables better channel coordination, faster delivery, cost reductions, and tighter partnerships inside the chain. Table 2 sums up the literature of this chapter and describe common challenges of long supply chains.

Table 2. Challenges of long supply chains.

DRIVERS	EFFECTS
Closer relationships (Peck 2006: Hallikas et al 2004: Soosay et al. 2012)	Problem transfer from the first link to the next, closeness of the relationships affects supply chain functions
Rising customer awareness (Wagner & Eggert 2016)	More demanding customers
Outsourcing (Gereffi 2016)	More diverse system in global surroundings
Changing business channels (Harland et al. 2003)	Growth of e-business
Changing demand (Hallikas et al. 2004)	Positive/negative changes in market needs
Increasing delivery volumes (Hallikas et al. 2004)	Firm's own capacity
Cost management and pricing (Hallikas et al. 2004)	Ability to control fixed and variable costs
Weaknesses in resources, development and flexibility (Hallikas et al. 2004)	Firm's resources and organization culture
Firm’s internal problems (Tang & Tomlin 2008)	Increasing supply, process, demand, behavioural and political risks

2.3 Supply chains in pulp and paper industry

In process industries, the supplier is located in the middle of the supply chain and they are rarely in direct contact with consumers. Dynamic markets and greater competition are commonly noticed in the process industry where companies try to answer to the demand with mass-customized products (Shah 2005: Papageorgiou 2009). Large market volumes and similar quality requirements of customers are typical for process industry, where the price is often the most significant factor for the customer (Diesen 2007).

The supply chains in the pulp and paper industry are commonly quite long, including multiple organizations (Lehoux et al. 2008). The aim of the industry is to produce multiple end user products from pulp material that will contain relatively little variety of different wood species. The consumption of the traditional pulp-based products is still growing, but also entirely new use purposes for pulp is continuously developed. Since there are many members in the pulp and paper supply chains, the information flows through the organizations rises its importance. This will also emphasize the importance of different information systems. (Lehoux et al. 2008: Lehoux et al. 2011).

Pulp and paper industry traditionally consist two main types of firms. Companies operating in the pulp and paper sector process raw or recycled wood fibers to manufacture pulp and paper. Converting manufacturers use these produced materials to create specialized products (Popp et al. 2011). There are varieties of different products in the pulp and paper industry. In general, the products are segmented into five product segments, which are:

1. Printing and writing
2. Newsprint
3. Tissue
4. Container board
5. Other paper and paperboards (Carlsson et al. 2009)

Hardwood and softwood is used in paper and pulp production. Harwood pulp is produced, for example, from birch or eucalyptus. These tree types have shorter fibers. The function of the hardwood fibers is to improve the paper bulk and, in the case of tissue paper products, softness and smoothness. Softwood pulp is traditionally produced from spruce or pine. These wood species have longer fibers, which enables many strong bonds between the fibers. These bonds create strong network in paper manufacturing process and increase the strength of the paper (Metsä Fibre 2017).

The nature of the pulp industry is cyclical which especially results from price fluctuation of pulp grades. The price fluctuation is result of volatility in the demand and supply balance, inventory speculation by customer and economic fluctuation. In the paper industry, the pulp and fiber costs consider substantial part of the production cost of the paper. Softwood pulps are usually more expensive than hardwood pulps. As the prices are changing, the price differences between pulp grades are also differing. Paper manufacturers want naturally to minimize their production costs. If the price of the softwood rises considerably compared to hardwood, these fibers are tried to be replaced with hardwood. This is an issue, which especially softwood pulp producers have to manage (Diesen 2007).

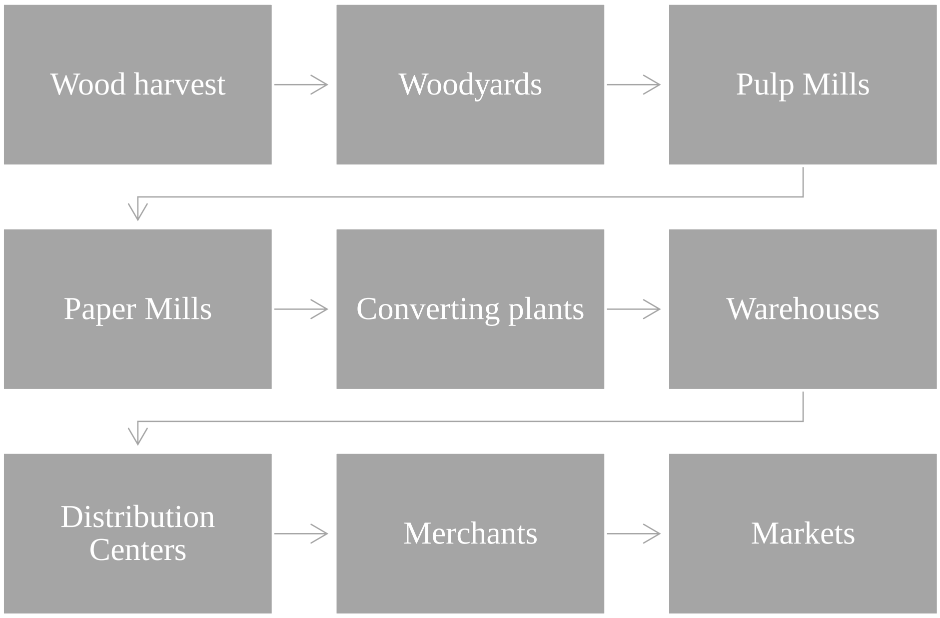

Figure 4. The pulp and paper supply chain (Carlsson et al. 2009).

Figure 4 describes the general supply chain in the industry. The chain is relatively long and consists of many production units forming a wide supply chain. The goal of the chain is to transform wood raw material into end user product. The figure presents the simplified paper making process. The pulping process takes place in the pulp mill, where lignin and fibers are separated by dissolving the wood chips. The process can be either mechanical or chemical. In the chemical process, the wood chips are boiled with white liquor to dissolve fiber bonds. The process will result wood fibers (pulp) and black liquor. After delignification, the next process step is bleaching. The bleaching removes the residual lignin and gives the final product a good appearance (Popp et al. 2011). After variety of steps, the pulp is ready to be transported to paper mills.

There are many specific factors for the pulp and paper industry. Produced pulp quality and volumes are sometimes hard to predict, because of the many variables affecting the pulp production, the time of the planning varies between half of the century to minutes, depending which operational decisions are considered, and the end product types are varying a lot compared to the variety of pulp grades. (Diesen 2007: Carlsson et al. 2009). In addition, the industry is capital intensive because of the huge investments required of different chain actors (Szabó et al. 2009).

Traditionally the relationships between pulp suppliers and their customers have been simple order-based relationships. Nowadays the trend is shifting towards more customer orientated and vendor managed inventory, as continuous replenishment and more collaborative models are used in the market (Popp et al. 2011). The trend will still develop in the future, since this offers the supplier the opportunity to differentiate their offering in the eyes of the customer. The change in the relationships will acquire more and more information flow between the supplier and the customer (Lehoux et al. 2008: Lehoux et al. 2011). Customers are normally divided to contract based customers and not that commonly ordering spot customers (Carlsson et al. 2009).

The pulp and paper industry has faced three major structural changes in the market. In the traditional markets, (e.g. Europe excluding Eastern Europe) the consumption of different paper products is growing relatively slowly because for instance the changing consumer patterns of printed literature (Diesen 2007). The focus is, for this reason, shifting to Asia where the population and GDP is increasing, resulting to increased consumption of different paper products. In Asia there is not enough wood available, which means that the pulp market has to face the increasing customer demand by import. In addition, the importance of Latin America is increasing, as the use of eucalyptus pulp is rising. In future, these factors will create even tighter competition in the pulp and paper industry (Carlsson et al. 2009).

The numerous members in the supply chain cause big transportation cost when material is transported across the members (Carlsson et al. 2009). For this reason, the share of the logistic cost is remarkable part of the material cost. There by the transportation planning is important especially because of the even longer transportation distances, increasing fuel prices and tightening environmental policies in the future (Popp et al. 2011). Figure 5 presents rough calculations of value increase along the supply chains. The figure demonstrates how the monetary value increase happens as the wood is produced to pulp and further into toilet paper in consumer markets.

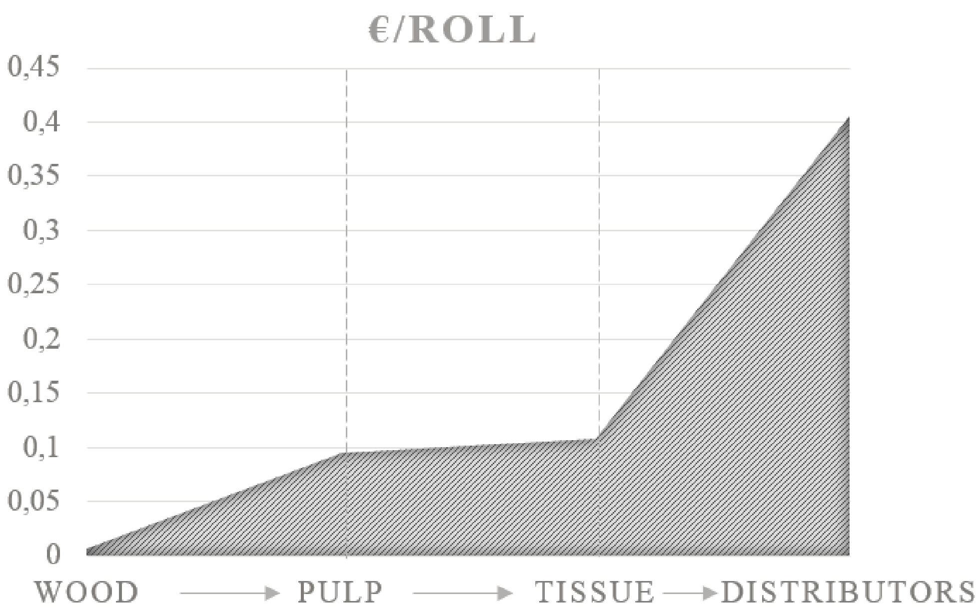

Figure 5. Value increase along toilet tissue supply chain (Pöyry 2017).

3 CUSTOMER VALUE PERCEPTION ALONG THE SUPPLY CHAIN

Current literature has considered the role of suppliers and customers in value creation process (e.g. Grönroos & Voima 2013) and examined the value creation in the supply chain context from individual supplier point of view (Kothandaraman & Wilson 2001). More united supply chain with open information channels enables suppliers to gain understanding of the final needs of the customers and the final use purposes of the products (Cetin & Fazil 2014: Wagner & Eggert 2016). Well-organized supply chains do not only offer cost reduction and lower end price of the product, but systems may also create superior customer value and competitive advantage (Cristopher & Gattorna 2004). This can be achieved when the chains have a common marketing strategy and goal to satisfy the end user, which will lead to customer loyalty. This again results to bigger product profit margins and increases the chain's profitability (Flint 2004).

3.1 Customer value in business-to-business markets

The modern understanding of customer value in business-to-business markets considers both, tangible and intangible sides of the value (Keränen 2014: Patala et al. 2016: Matthyssens et al. 2016). Traditionally value has been considered as value-exchange, where value derives from functions and performance from the product. However, current literature considers value to be created in-use (Grönroos 2011) where customer value is considered to be co-created jointly with customer during their usage. This also underlines the importance of relationship between supplier and buyer.

The concept of *relationship value* includes benefits coming from economic, social, and strategic dimensions (Ulaga & Eggert 2005). This concept underlines the cooperative side of the customer value, where the value is not only limited to the product features and quality, but considers the benefits from the buyer-seller relationships more widely, such as reputation, relationship quality, trust and customer loyalty (Grönroos & Voima 2013: Matthyssens et al. 2016). According to more monetary centric view, the value is embedded in provided products and services (Anderson & Narus 1998). The product features are commonly shared to five product dimensions: core, expected, augmented potential and final products (Lovelock 1995). These dimensions are combined in different propositions in order to create unique products.

To understand more broadly what is customer value and how is it created, it is important to understand the different value dimensions relating to the customer value in business-to-business markets. Customer value can be considered as benefits coming from economic, technical, service, and social activities that can be defined in monetary terms (Anderson et al. 1995: Anderson et al 2009 p. 6-7). Consequently, this definition refers to value as net benefits received from the offering, where occurred costs (except the price) are reduced from the received benefits. These benefits can be monetary, such as cost savings, or non-monetary, such as increased trust or decreased risk (Grönroos 2011). However, this definition does not consider holistically relational side of the value perceived from the supplier-buyer relationship (Eggert et al. 2006) nor the sustainable value dimension of the offering (Lacoste 2016). The relational benefits can be categorized to product quality, service support, delivery performance, supplier expertise, time-to-market and personal interaction relationship (Eggert et al. 2006). As the business-to-business markets are becoming more solution-oriented, broader value dimensions are needed to consider offerings in operational, strategic, social, and symbolic terms (Töytäri et al. 2015).

Since this study focused on the value of toilet tissue supply chain, the more simplified dimensions of the value might offer more understandable tool to evaluate customer value in this particular market. The offerings are mostly bulk products and there are no complex technical solutions offered in daily business. Due to these reasons, this thesis examines value through *economic, technical, service* and *social* dimensions (e.g. Anderson et al. 2009 p. 6-7). However, in addition to these perceived benefits the research will consider sustainability sides of the offering by adding *environmental value dimension* (Lacoste 2016) to Andersons et al. (2009) dimensions. This is justified because environmental value is increasingly important for customers in many market areas (Meehan & Bryde 2011). These value dimensions are presented in figure 6.

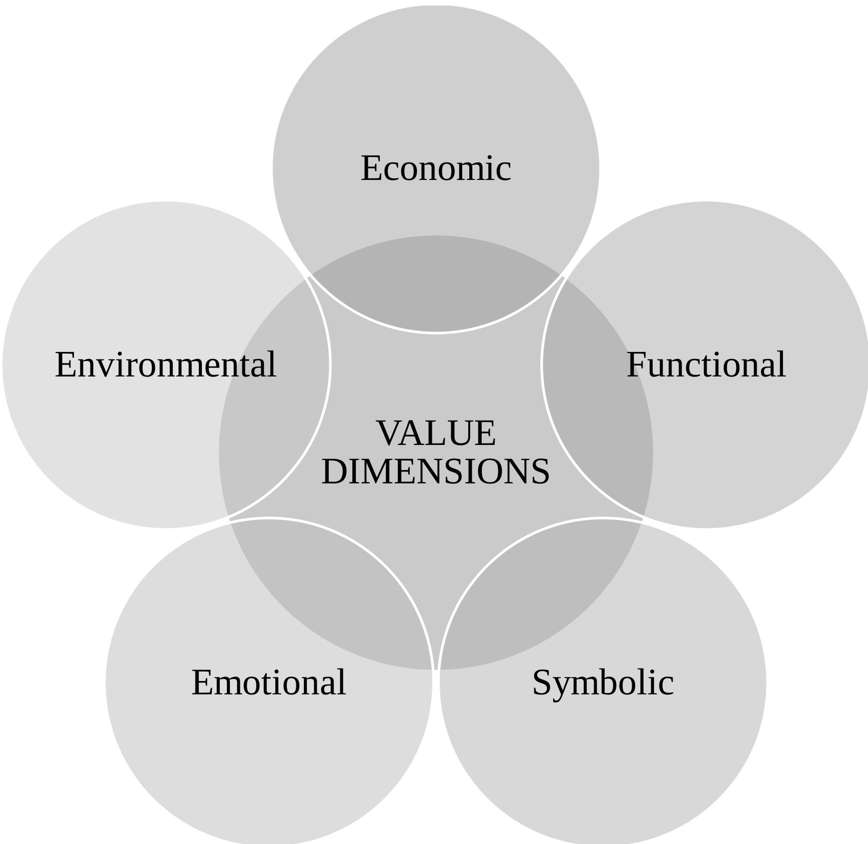

Figure 6. Customer value dimensions (Anderson et al. 2006: Lacoste 2016).

3.2 Customer value in consumer marketing literature

In the consumer marketing literature, there are two major streams to describe consumer value either as a trade-off between quality and price or as trade-off between benefits and sacrifices (e.g Babin et al. 1994: Holbrook 1999: Hansen et al. 2013). The first value definition has been criticized to be too narrow, since it does not consider the hedonic and emotional side of the offering and limits the value as an outcome of consumer consumption or service experience (Holbrook 1999). Regarding the value as a trade of between consumer benefit and sacrifices makes it possible to consider the non-monetary side of the offering including cognitive experiences of the customer. The value concept highlights the possibility of offering to be consumed just because trying to achieve pleasure, not just, because aim is to do something (Babin et al. 1994). Holbrook (1999) defines consumer value in following way: “Customer value is interactive relativistic preference experience.” For this reason, the environment plays important role in customer value, since the consumer interprets the value in the certain time and place. The purchase decisions will be made in the stores where these produced offerings are displayed (Inès & Herbert 2016).

When creating consumer value, it is important to understand the value dimensions of this offering. There is a lot of literature about the different dimensions and characteristics of consumer value. Holbrook (1994) introduced extensive study of eight value types that cover holistically customer value. These characteristics are efficiency, excellence, status, esteem, play, aesthetics, ethics, and spirituality. Few years before Holbrook, Sheth et al (1991) noted the functional, emotional, social, conditional, and epistemic sides of the value. More recently, Sweeney and Soutar (2001) divided value to four dimensions considering social, emotional, performance and economical values. In retail business Rintamäki et al (2007: in press) restrained the value perception to four dimensions. This thesis uses these value dimensions of Rintamäki et al. (2007: in press) when estimating created consumer value, since those are simpler than Holbrooks eight value dimensions and have more customer orientated view of consumer value than Sweeney and Soutar.

According Rintamäki et al (2007) research, customer value is divided to four dimensions:

1. Economic value
2. Functional value
3. Emotional value
4. Symbolic value

Logically, economic value is reflecting the customer's monetary sacrifices and the main focus in this dimension is to offer the product either at low price or at the best possible trade off. The highlight in functional value is that the focus should not only be in the functions of the product, but the customer processes. Basically this means that firms should not concentrate only on product characteristics, but firms should think more broadly how customers are using their product and what would decrease the amount of customer effort when using it. The emotional dimension of the product takes a closer look at customer's emotional processes and points out the offering characteristics that affects end users' feelings. The symbolic value links to this, since the focus is drawn on how firm's products are affecting their customers' self-image (Rintamäki et al. in press). For example, customers purchasing ecofriendly toilet paper may feel that they are now more sustainable and ecofriendly consumers compared to the others. This can also be seen in consumption of highly valued brands, as consumers are expressing their social status through more expensive product brands.

3.3 Value creation in supply chains

From the supply chain perspective, the value creation process is even more complicated. Even though Kothandaraman and Wilson (2001) consider value creation in their article through networks, a lot can be learned from their conclusions in supply chains. The shift from firm-based view to more extensive network perspective enables companies to broaden their idea of value creation processes. The broaden view has been increasingly important, since it is not often possible for the companies to create best possible value for the customer inside their own organization, but often firm's must integrate their activities to offer best possible outcome (Kothandaraman & Wilson 2001).

Figure 7 presents simplified concept of value creation process in the supply chain. The process describes how superior value can be formed inside the chain. The aim of any value creating chain is to create superior value for the customer. This can be performed by assembling member firms' core capabilities. The possibilities to use these capabilities are determined by the relationships inside the chain, as the problems in the relationships might prevent combining companies' core capabilities. If the chain does not use its whole capability potential, superior customer value might be endangered (Kohtandaraman & Wilson 2001). Consequently, the importance of relationships is high. Good relationships help to maintain the system, as the stable state of the chain will encourage firms to invest to their activities. The relationship status might also act as a motivator when companies are bringing their core capabilities to the chain in orders to increase their status and importance inside the system (Soosay et al. 2012).

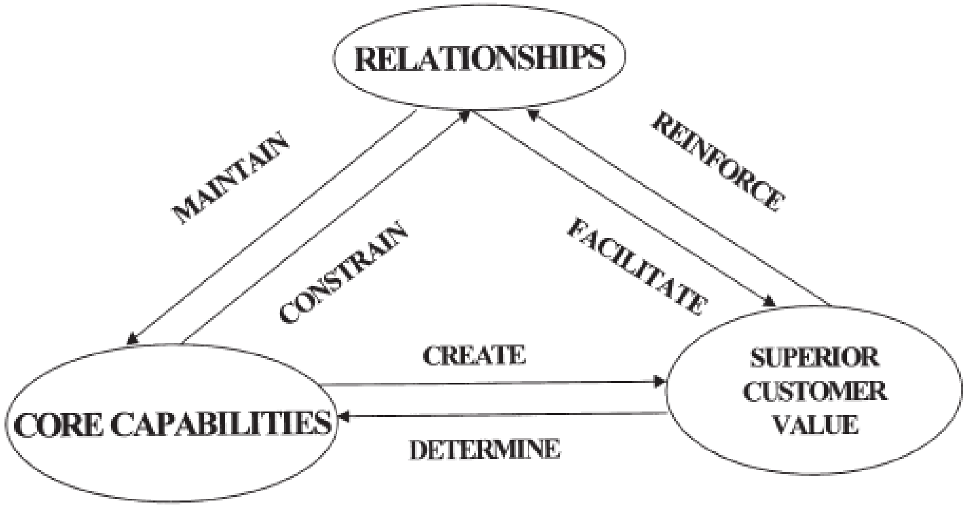

Figure 7. A model of value-creation (Kothandaraman & Wilson 2001).

In addition to importance of these three dimensions, Soosay et al. (2012) recognized two more ways to gain value in the supply chain level. The first important value adding activity in the chain is to *ensure smooth information flow* through the supply chain. This means that two-way information flow should pass from the final end user to primary production and different suppliers and back. The second point of the value creation in the chain is that *each step should increase the created value* in the eyes of final consumer. This means that in order to maximize the value of the offering, worthless activities should be screened out.

In addition to this, value creation in supply chains can be improved when changing the managerial perspective (Al-Mudimigh et al. 2004). The shifted focus from managing functions to ensuring the smooth flow through the supply chain process is crucial when creating value in the supply chain. It is also necessary to change the management style to more responsive and lower hierarchy form. The cross-organizational co-management of marketing and purchasing activities bring comparative advantages for the companies (Wagner & Eggert 2016).

Table 3 presents the value creation activities acquired from the suppliers and wider from the supply chains. The identification of these activities is crucial since those enable the creation of superior customer offering. Although the table only describes the activities of the supplier, the customer role should not be for gotten.

Table 3. Supplier's value creation activities in firm and supply chain level.

FIRM-BASED ACTIVITIES	SUPPLY CHAIN-BASED ACTIVITIES
Selecting customer and customer groups (Tuli et al. 2007) Defining customer requirements (Tuli et al. 2007)	Creating and sustaining relationships (Kothandaraman & Wilson 2001: Soosay et al. 2012).
Customizing and integrating the offering based on the firms' core capabilities (Tuli et al. 2007: Kothandaraman & Wilson 2001: Terho et al. 2012)	Ensuring smooth information flow (Soosay et al 2012)
Deploying the solutions though firm internal supply chains (Capeda-Carrion et al. 2017: Terho et al 2012) Marketing and sales activities (Haas et al. 2012: Terho et al. 2012)	Combining core capabilities (Kothandaraman & Wilson 2001: Soosay et al. 2012).
Providing support after the direct interaction, collecting customer feedback (Tuli et al. 2007).	Manging the supply chains (Al-Mudimigh et al. 2004)
Defining firm's own place in the supply chain (Kothandaraman & Wilson 2001).	Incremental value creation

The main difference in the value creation process in the B-to-C markets compare to B-to-B markets is that the value provider may not participate to the process at all, but the consumer might consume the received value without any interaction with supplier. Instead, the importance of consumer-to-consumer interaction plays important role when consumers are sharing their opinions and experiences of the offering (Anker et al. 2015).

Consumers receive and create value in multiple stages along the purchase and consumption processes. Consumers have to make decisions to end up with certain good. First customers have to make the decision to buy something to fulfill their need. The next decision relates to the product level where they have to select the product type, which they would believe to match their need the best possible way. Finally, the decision has to be made in brand level where consumers choose certain brand over the others. These decisions are based on customer value, which includes different value dimensions (Sheth et al. 1991).

The consumer’s role as an interpreter rises as they have the possibility to either accept or deny value created by the company (Martelo et al. 2013). The product is integrated with consumer own resources and knowledge. This will lead to customer value perception (Holopainen 2014) when the offered value is compared with the value dimensions of the customer (e.g. Holbrook 1999: Rintamäki et al. 2007).

Finally, shopping behavior and outcome reflects the success of the value creation process in B-to-C markets (Sheth et al. 1991). In consumer business, the drivers of consumer value changes between customers, and depend on the context, situation, and time (Holbrook 1999: Rintamäki & Kirves article in press). As a result, the assessment of the final end product is always individual activity of the consumer where the end users are comparing the perceived benefits of the product to the incurred costs. If the offering does not fulfill the consumer demands, they will feel disappointed. On the other hand, if the product fulfills or exceeds the expectations, customer will be satisfied (Hansen et al. 2013). For this reason, strong understanding of consumer value dimensions is extremely important in the end consumer markets.

As a conclusion, it can be mentioned that the customer value creation processes are individually experienced and happen when customers are comparing the good with their own idea of the value. The value is normally consumed in use, which will highlight the importance of consumer experience. Compared to the B-to-B markets, the value dimensions of the consumer are much more complex, and also emotional and symbolic aspects are affecting to the end user received customer value (Holbrook 1994: Rintamäki et al. 2007: in press: Anker et al 2015). As the consumer may not even have an opportunity to interact with the product provider, the environment and stores are also creating image of the consumed product. The table 4 summarizes some key activities of the supply chain in consumer value creation process.

Table 4. Consumer value creation in supply chain context.

VALUE DIMENSIONS	SUPPLY CHAIN ACTIVITIES
Economic	Deploying solution through whole supply chain
	Incrementally increasing value creation process along the chain
	Smoothly operating supply chain
Functional	Defining consumer requirements along the chain
	Integrating consumer requirements to the chain
	Communicating the produced value
Emotional	Identifying emotionally important features of the offering
Symbolic	Considering consumer's social environment
Environmental	Understanding consumer green value and deploying sustainable activities along the whole supply chain

3.4 Changes in the customer value perception along the supply chain

Customer value perception changes along the supply chain. In ideal case the value is increasing incrementally in every step of the chain in the eyes of end user (Soosay et al. 2012). The value characteristics along the supply chain can differ, however. Supply chains include multiple buyer-supplier relationships (Mishra et al. 2016). These relationships are also multiplyig the number of customer interfaces in the chain where appreciated value will naturally differ depending on which relationship is under inspection (Eggert et al. 2006). For instanse, paper manufacturers and end consumers are demanding different value from their offering and even same value definitions might mean different things. For example strength in paper manufacturing process implies to tensile strength of the paper, where as the consumers might imply burst resictance.

Customer value is continuously changing in the market (Patala et al. 2016). Customers are affected by external environment and market conditions and by their internal organizations (Flint et al. 2011). The external factors imply that there might happen changes in customers' customers' desires, in customers' competitors' strategies or in their macro-environment. Companies might also affect and change their customer value desires themselves, by changing their offering or affecting to their own performance level. Internal drivers affecting to the customer value change include changes inside the customer organization and customer's perceived capabilities, such as control, knowledge, and performance levels (Flint 2002).

In complex and long supply chains, the number of participants increases, which will push the members of the chain further away from each other. This may eventually create clicks where the upstream operators such as producers, and downstream operators, like brand owners in the eyes of the end user, are closely cooperating together, but no common goals or information is shared between these separate units (Skippari et al. 2016). Commonly this creates problems where chain members cannot benefit from each other in the best possible way, but the information is shared only with people who might have the information anyway. The way to improve the activities strives from the ability to learn more about the business. For example, it is important to improve the information channels between suppliers and consumers, as this way they can predict and understand their own customers' needs more deeply. In practice, this can be seen from many upstream actors green marketing activities, where firms are investing greatly to their sustainable marketing activities, but cannot be certain if those meet their end consumers' requirements, as they don't have direct contact with them (Lacoste 2016).

As the level of internationalization in supply chains is increasing the complexity of the chains, these international characteristics are creating new problems in the chains. The geographic barriers, like different cultures and languages, are generating difficulties in the supply chain as the people operating in the systems are coming from totally different back grounds. In addition, Flint (2004) has recognize four global challenges beyond these factors that are affecting in the business and products offerings in the supply chains. These factors, presented in the figure 8, are especially concentrating on how the value perception and experiences are changing along the supply chain and in the different market areas and between the chain members.

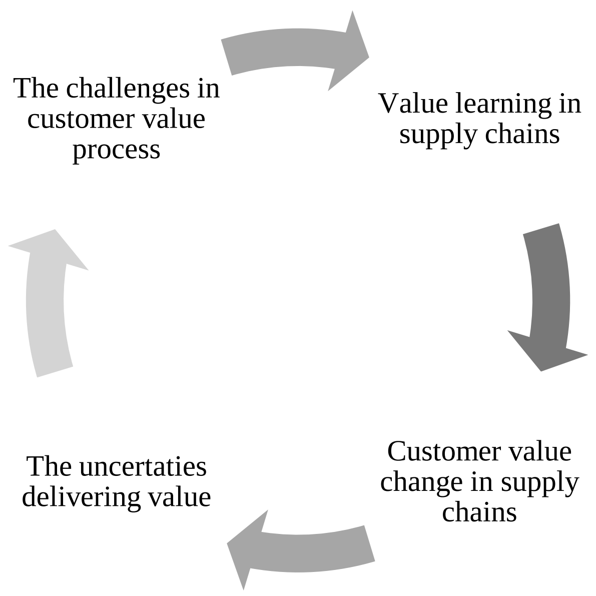

Figure 8. The value changes along the global supply chain. (Flint 2004).

The first recognized problem relates to the differences of how customer value is changing in the critical market segments in different countries within the chain (Flint 2004). For a firm to produce superior value for they customer, they need to look closely at their customer's customer and up to the final end-user. In this multilevel chain, it is important for the organization to consider the value perceptions of each individual firms to understand how the value is developing and changing along the chain. When the review of the chain is broadened to multinational level, the changes are even more significant, as the value is not changing only because of the position of the supply chain, or industry, but the cultural backgrounds are bringing even more variation to the value perception. In other words, value is changing when the position is changed in the chain and because different cultural backgrounds of the actors. Therefore, suppliers must understand that the value is different in each step of the supply chain.

The second challenge and factor affecting to the perceived value in the supply chain is the changing value perception of the customer (Flint 2004). As there are customers in many levels in the chain, there can be changes in customer needs and value in many level of the supply chain. When the customer needs change, companies have two possibilities: to react to the change or not. These decisions will be made separately inside the company, which makes it extremely difficult to predict how end-user needs effects the rest of the chain. There also might be significant lead times even all the participant would decide to react to the changed customer value perception, as the knowledge have to pass though many nods in the chain. This again confirms the findings of the importance of information flows in complex supply chains (Soosay et al. 2012: Wagner & Eggert 2016). On the other perspective, the supply chain's supplier-buyer relationships can be separated to B-to-B and B-to-C relationships. This will change the value propositions in the chain as the end users purchase decisions are varying compared to pure business relationships (Anker et al. 2015)

The third change relates to the uncertainty of the chain to deliver value (Flint 2004). In this perspective, the problem is not the supply chain participant's desires, but how to draw common link between the members who all value different things. To make sure the shared direction is reached, the information flow inside the chain rises again its importance. The common goal of the supply chain should be to create extensive marketing strategies that are shared across the chain. This would mean, for example, that firms should participate product development activities as a multi-actor supply chain to create superior value for their customer and for the end user.

The fourth change relates to the all three challenges mentioned before. The problem behind this change is that even firms would knowledge that the customers' value should be defined, companies should know how this value change and they should all be implementing strategies closer together, how this all could be implemented (Flint 2004). This will create many challenges in the future business, but ideally part of the members in the supply chain will modify their strategies and processes together bring their own knowledge to the chain. The notions of Skippari et al. (2016) support this view as they also stress how the collaboration inside the supply chain may result to innovations and better value offering, but on the other hand, it is many times hard to implement.

Customer value along the chain changes when already created value disappear (Prior & Marcos-Cuevas 2016). This can happen, for example, when information is not flowing smoothly along the chain (Soosay et al. 2012). These hazards in information flows are extremely hurtful for value creation process, when no sufficient information about customer value perception is shared. This might create information value gaps (Van der Haar et al. 2001), where companies are concentrating on wrong customer value, because of the misunderstanding of the customer. For example, let’s assume that the origin of the wood is important for the end consumer of the toilet tissue and that they value the FSC certificate in their product. If the wood is acquired from the certified sources and pulp is procuded according to these requirements, paper manufacturer could in principle continue this chain of sustainable value in their production. If they do not recognize this customer value and do not act as the certificate requires or do not communicate this value for the customer, the value will leak from the chain and dissaper. Consequently, companies might even concentrate on the wrong set of customer value and even offer more than customers would want. This creates value leakage, as consumers are not willing to pay for this extra value (Anderson & Narus 1998).

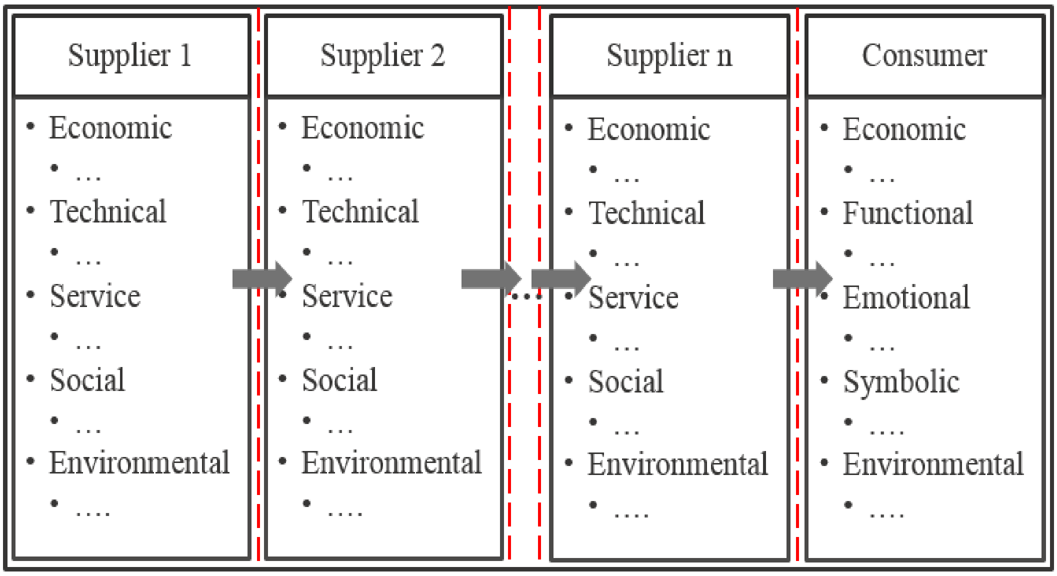

Figure 9. Customer value perception along the supply chain.

Figure 9 summarizes how customer perception is considered in this thesis. Under every supplier, different value dimensions are presented. This thesis examines the value from economic, technical, service, social and environmental point of view (Anderson et al. 2006: Lacoste 2016), since these value dimensions can best describe different dimensions of toilet tissue. Even though the value dimensions in the framework are presented identically, this does not mean that the listed dimensions would be identical as well. In fact, customer value perception changes along the supply chain, and the value preferred by each customer differs (Soosay et al. 2012: Mishra et al. 2016). In the consumer end, the value dimensions differs from the suppliers' value dimensions since consumers' feelings and emotions are effecting to the customer value. In addition, the lack of "service function" describes the difference between the end consumer and other actors. Technical attributes are replaced by the functional attributes (Babin et al. 1994: Inès & Herbert 2016).

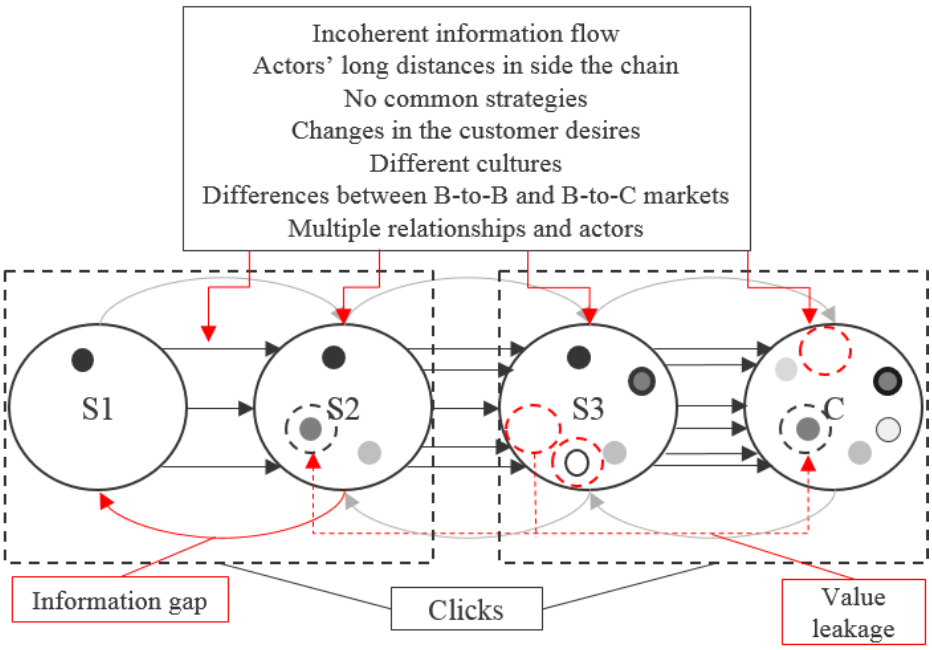

Figure 10. Drivers changing the value along the supply chain

Figure 10 suggests framework based on the reviewed literature and presents these identified drivers changing customer value perception. Big circles in the picture present actors along the chain. Inside each actor, smaller circles illustrate consumer benefits creating the base for customer's unique value perception. In ideal case, this created customer value should develop along the chain, and no created benefits should be lost in the chain. In some cases, all customer valued benefits are not transferred inside the chain, which will lead to value leaked. Curved arrows present information flows between actors. The red colored arrow illustrates how some information might not reach all suppliers along the chain, which might cause information gaps. For example, separate information clicks between downstream and upstream suppliers might cause this kind of value leakage, when information is not share openly through the whole supply chain. The straight arrows in the picture illustrate how created value is transferred between members in the chain. The number of arrows is rising, since the number of customers is often increasing along the chain.

The reviewed literature provides an understanding why these different value dimensions and customer value perception change in the system (e.g. Flint 2004: Eggert et al. 2006: Anker et al. 2015). As the chain consists of multiple actors it is only natural that there exist some differences in the value since customers are valuing and demanding different things (Eggert et al. 2006: Mishra et al. 2016). These differences are caused by changing consumer desired value, actor position in the chain, different cultural back grounds of the supplier and simply different use purposes of the offering life cycle. In ideal case, the value would anyhow incrementally increase and no value would disappear along the chain. Unfortunately, this is not the truth in many cases. Table 5 summarize the findings of this chapter and suggest some prevention activities to ensure the coherent value delivery all the way to the end user and back.

Table 5. Changes in value along the supply chain.

Changes in value along the supply chain	**Drivers**	**Prevention**
Different value perceptions along the chain (Flint 2004: Mishra et al. 2016)	Multiple actors (Mishra et al. 2016)	Common strategic goals, fluent information flow
	Multiple buyer-supplier relationships (Flint 2004: Mishra et al. 2016)	Common strategic goals, fluent information flow, clear idea of the end user requirements through the whole chain
	Different cultural backgrounds (Flint 2004)	Understanding different business cultures
	Different customer value (Eggert et al. 2006)	Improving information channels to understand how value differ
	Differences in B-to-B and B-to-C markets (Anker et al. 2015)	Understanding both B-to-B and B-to-C markets
Value gaps (Anderson & Narus 1998: van der Haar 2001)	Information gap (van der Haar 2001: Soosay et al. 2012)	Improving information channels
	Value leakage (Anderson & Narus 1998)	Internal education of resource usage. More in-depth customer research
Long distance between the actors (Skippari et al. 2016)	Creation of "clicks" (Skippari et al. 2016)	Improvement of information channels and more open relationships
Uncertainty of the supply chain value delivery	Changes in the consumer desired value (Flint 2011: 2002).	Market forecasts, fluent information flow, closer relationships with customers
	No common strategies existing in the chain in order to create superior customer value (Flint 2004)	More co-operation within the chain

4 METHODOLOGY

The aim of this study was to explore what kind of value consumers perceive from toilet tissue, and how customer value perceptions change across the toilet tissue supply chain. In order to have more in-depth understanding of the customer value perception, the research examined value dimensions of customers in two different market areas. The study adopted qualitative research approach and employed abductive multiple case study strategy (Yin 2002). Abductive logic is from its nature a combination of deductive and inductive logics (Dubois & Gadde 2002) where theoretical and empirical findings are simultaneously compared with each other. In practice, this was done by designing customer focus groups and in-depth interviews based on the current literature. The data was partly analyzed based on the reviewed literature and partly based on the themes emerged from the gathered data.

Qualitative approach is commonly used in business studies and is especially useful when the purpose is to gain deeper understanding of the studied phenomena in real-life context (Yin 2002: Erikson & Kovalainen 2008, pp. 4-9). In this study, qualitative research offered an opportunity to understand how customer value perceptions of toilet tissues were considered in pulp supplier end and how customer value perception changed along the toilet tissue supply chain. Descriptive case strategy aims to collect full description of the phenomena in its context (Yin 2002) and this study examined customer value perception along toilet tissue supply chain. The method provided suitable settings for this thesis, since the aim of this research was to identify customer value perceptions and more deeply understand changes of value perceptions along the supply chain. In addition, a multiple case study design offered the opportunity to examine variation of customer value in different market areas (Erikson & Kovalainen 2008, pp. 123-124).

4.1 Case description

Metsä Group operates in many forest industry sectors through its parent company and subsidiaries. Concern operates in 30 and has production in seven different countries. 100 % of the used wood material is traceable and 84 % of the wood is certified. Metsä Group invests in the future and the new bioproduct mill in Äänekoski will offer new business opportunities for the whole group. The biggest Finnish investment in forest industry will have impact on the entire Finnish economy. The most efficient pulp mill in the world will produce 1,3 million tons of pulp annually, and it will fully utilize its side streams and will not use any fossil fuels in its production. This will lead to new bioproducts and will decrease the environmental impact of the factory to be extremely low. The mill will start its operations during the third quarter of 2017 (Metsä Fibre 2017).

Metsä Fibre is a part of Metsä Group and it is one of the leading producers of bleached softwood and birch pulp. These materials are extremely suitable for high quality tissue-, printing paper, board and other special products. In addition to the pulp production, the company produces different kind of bioproducts, like biochemicals and bioenergy. Furthermore, Metsä Fibre provides services and their expertise for their customers to ensure the most efficient fiber use in customers' processes (Metsä Fibre 2017).

The aim of the company is to be at the top in providing high quality bioproducts and supporting services for their customers. The company provides reliable deliveries and consistent quality for all customer segments. In addition, Metsä Fibre provides more added value for its customers through technical support services. Furthermore, firm cherishes trusts and transparency in their business with key customers, where more value-added services are provided and deeper understanding of customer business is acquired (Metsä Fibre 2017).

Toilet tissue can be made of recycled or virgin fiber or mixture of both. The toilet tissue is mostly made of both, soft- and hardwood. Fibers of softwood are long, strong, and flexible. Long fibers have ability to overlap each other tightly, which will increase their bonding ability. In this way, fibers increase the strength of the paper. The softness and paper bulk are achieved by using hardwood fibers, in where the fibers are shorter. The best possible outcome will be achieved by using suitable mix of these materials (Metsä Fibre 2017).

Like in most paper manufacturing processes, tissue manufacturing includes wet end, press section, and drying section. The simplified production process is presented in figure 11. Along this process, the water content of the product decreases from 99,8% in wet end to around 4-8 %. Tissue manufacturing start in the pulpers where pulp fibers are mixed with hot water and agents improving product characteristics, such as pigments, tinting dies and antifoaming agents. From the headbox, the mixture is lead onto the wire of the forming section. Along the wire, fibers are eventually forming fiber networks as those pass the press and drying section. Creping of the base paper is performed by the doctor blades of Yankee cylinder, which is a part of the drying section. Creping is critical for many important paper characteristics, since it affects to paper’s thickness (bulk) and absorbency. Soft paper can be achieved by creping the paper finely (Paulapuro 2000).

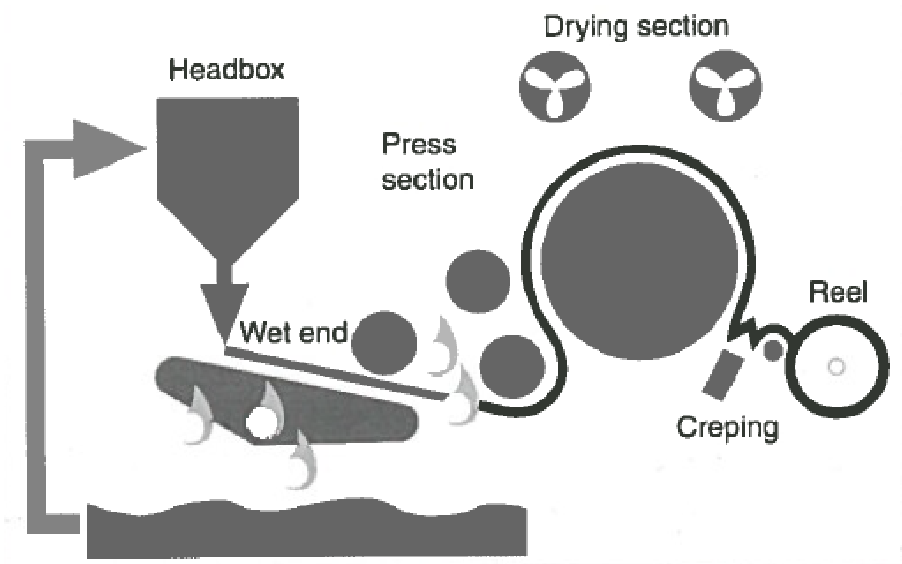

Figure 11. Main stages of tissue making process (Paulapuro 2000).

After producing the base paper, the paper has to be converted. At first, the paper is embossed. This means that the paper plies are attached together partly or completely. This improves the paper's water absorbency, softness, and appearance. The printing phase of the paper is optional, but it gives the paper possibilities to have unique designs and patterns. After this, paper is perforated to make the sheets easier to separate. Finally, the paper is wound, the paper ends are sealed, and rolls are cut to desired width. These processes will give the final shape for the paper rolls. In the end, the ready rolls are packaged (Paulapuro 2000: Sofidel 2017).

4.2 Case study

This thesis used case study as a research strategy. Case study method is commonly used research strategy in various scientific fields and is also popular research method in business studies as the research problem can often be presented in "case-" or "several case-settings" (Yin 2009, p. 4). Case studies examine issues by exploring them in defined systems, within certain time and place. The aim of the strategy is to gain in-depth data of the phenomena, involving multiple different, information rich sources (Creswell 2013: Creswell 1998, pp. 61).

On the other hand, Yin (2002) defines the case study to be an empirical strategy, where contemporary phenomena are investigated through real life context. This thesis examined changes in customer value perception along the supply chain trough real toilet tissue supply chain and then gathered information about the internal knowledge about the issue. Hence, the case study created understanding of the phenomena in single settings (Eriksson & Kovalainen 2008, pp. 117-119). The case study settings were suitable for this research design, since the boundaries of the phenomena could be determined and the study tried to achieve deeper understanding of the issue. The case boundaries in this particular research were drawn to consider only toilet tissue products in selected market areas. In addition, the thesis will only focus on pulp supplier, tissue manufacturer and end user in the toilet tissue supply chain and was not interested in the internal differences of these actor groups.

Case study research offers multiple options to gather and receive data, like interviews, observation and even combine quantitative data collection forms like surveys, which will enrich research's empirical findings. (Eriksson & Kovalainen 2008, pp. 117-119). This research collected empirical data by employing two online focus groups and five in-depth interviews. Online focus groups were used to collect simultaneously information about the consumer value dimensions from paper manufacturer organizations in different market areas. In-depth interviews were then implemented to examine the internal knowledge about customer value perception in selected market areas and to shed light how value perceptions change along the members inside the toilet tissue chain.

According to Yin (2014), case selection is one of the critical aspects of the case research strategy. Before starting the study, the boundaries of the case have to be determined carefully, and only cases with clear starting and ending point should be selected (Yin 2002). Studies can be divided into single and multiple case studies and holistic or embedded researches depending on the research design and unit of analysis. In single case studies, the research is focusing on one determined case, where as in multiple case designs, many cases are examined simultaneously. The unit of analysis can be one single unit, where the interest is more holistic of the phenomena, or there can be various units of analysis inside one case, which means that the results of the research will be more complex. In addition to the determination of case boundaries and unit of analysis, Stake (1995: 2000) stresses the importance of research questions, which will evolve along with the empirical data.

The case design in this research was holistic multiple case study (Yin 2014). Single cases in this research were the individual toilet tissue supply chains in certain market area. The study focused on two market areas and compared these supply chains between each other creating two individual cases. The unit of analysis was single customer value perception that was changing along the chain. The settings were holistic, as deeper understanding was wanted from the whole supply chain and the research was not interested e.g. on the differences inside the market.

4.3 Case selection and description

The aim of the thesis was to collect rich data from different tissue markets. Even though data coming straight from end users might have offered the most precise information about the current state of the market situation and customer desires, in this study we decided to use tissue manufacturers as informants. Although this decision might have limited received results, the choice was justified as the access to the market areas was limited and receiving presentable samples from the populations would have been quite challenging. However, this decision had to be considered when assessing the limitation of the research results.

The markets were selected by using purposive sampling in order to gain data (Saunders et al 2009, p. 237-240). The market areas were selected based on three criteria. First, the selected market areas had to be important and interesting for the case company, meaning that the tissue markets and case company's activities must have been strong in the market. Secondly, the selected market areas were assumed to offer rich data, with suitable informants inside the market area. Finally, the markets had to be homogenous in order to gain diverse understanding of the market situations. The selected market areas were Finland and Turkey.

After selecting suitable market areas for the study, the research employed convenience sampling when selecting tissue manufacturers in the markets (Saunders et al. 2009, p. 241). All selected companies were case company's customers, since the used data collection method acquired trust and open relationships between buyer and supplier. The most suitable manufacturers were determined based on the availability, relationships, and convenience. The convenience pins out in the selection process since the existing close relationships and connections to suitable departments helped the research process. Participants inside the customer organization were selected by using snowball sampling (Saunders et al. 2009, p. 240-241), where key contacts in the company suggested the most suitable participants in the organization and those again recognize new participants.

4.4 Data collection

This master thesis used mixed methods to collect data. The first phase of the data collection was to use firm's new ideation tool Botnia IdeaBooster. The second phase of the data collection was to get insight of company's internal activities and knowledge. This was examined by using in-depth, semi-structured interviews. The interviews were conducted with the employees of the case company from the Sales and Customership department.

4.4.1 Botnia IdeaBooster

Focus groups examine specific problem where discussion is needed in order to receive holistic and in-depth understanding of the issue. In market research, the method is used especially when studying consumers' reactions and attitudes towards new products (Roller & Lavrakas 2015, p. 104-115). Comparing to other group-based data collection forms, in focus groups the participants are encouraged but also controlled to keep their focus in the research problem. The role of the researcher is, in this case, to act as a moderator. The participants are selected according their knowledge, expertise or other characteristics. The goal of the focus group is not to find consensus inside the group, but to get everyone's voice heard to get as comprehensive idea of the research topic as possible. Discussion will be organized several times with similar participant groups, to enable identification of common patterns and trends (Saunders et al. 2009). This thesis used online based platform Botnia IdeaBooster to collect data from the paper manufacturer's employees. The participants were asked to share their ideas of customer value perception of toilet tissue and encourage freely comment other's ideas. For this reason, the new idea-sharing program could be categorized as online focus group (Roller & Lavrakas 2015, p. 104-115).

Before the participants could access the system, a seed question had to be described. We decided to use question "*In country X, what are the most important features of toilet paper that influence the end consumer experience?"* The question remained the same for both groups, but the market area X, differed naturally according to the customer market area. Even though the purpose of this study was to examine customer value, the research question itself kept inside the terms "features of toilet tissue" and "end consumer experience." This selection was made, when discussed inside the organization. The "customer value" or "customer value perception" concepts might have been too abstract and not offer as comprehensive information of the customer desires.

Table 6 presents the key figures from the Booster in Finland and in Turkey. The participants were in both markets form marketing, product development and sales departments. In Finland, we had the opportunity to be in direct contact with the customer and organize meetings with them to introduce the background and goals of this study. This resulted to quite good participant rate, since 88 % of the possible participants were active in the platform. In Turkey, the participant rate stayed in little lower level and the study failed to commit customers to be as active as in Finland. In Turkey, the English language and different business culture may have been factors affecting to the groups activity. The number of new ideas presents how many new conversation starters participants created in the booster. The number of new ideas was quite small in both markets and especially in Turkey. This was probably because many participants might have felt insecure to start new conversations in the platform. However, many of the new ideas were presented in the conversation under already presented suggestion.

Table 6. Figures from Botnia IdeaBooster.

	FINLAND	TURKEY
Number of possible participants	*16*	*26*
Active participants	*14*	*16*
%-participants	*88 %*	*62 %*
Number of new ideas	*19*	*8*
Number of ratings	*120*	*87*
Number of comments	*74*	*43*

4.4.2 In-depth interviews

Total five interviews were conducted in this research. The study used semi-structured and in-depth interviews to gain understanding of the customer value perceptions in business-to-business surroundings and to examine the current expertise of the Metsä Fibre's knowledge of consumer market. Table 7 presents more details about the employed interviews. The interviews were conducted with few sales managers, sales director and VPs of Sales and Customership. In average, the interviews took around 35 minutes. One was conducted in English and others in Finnish.

Table 7. The Interviewees.

INTERVIEWEES	DEPARTMENT	TIME
A	Sales and Customership	45 min
B	Sales and Customership	29 min
C	Sales and Customership	30 min
D	Sales and Customership	35 min
E	Sales and Customership	36 min

4.5 Data analysis

The collected qualitative data was analyzed by using thematic analysis (Saunders et al. 2009). The purpose of this analysis was to find repeated themes and patterns from the collected material (Brooks et al. 2015). This research derived main codes from the existing literature and was there by using theory driven and deductive approach (Saunders et al. 2009). These main code categories present value dimension of customers in different market areas (Anderson et al. 2009: Lacoste 2016: Rintamäki et al. 2007: in press). Deductive analysis approach may be quite selective process, when the data is analyzed with preliminary assumptions. This again might be a threat for the research's reliability. Nonetheless, it also offers an opportunity to link the findings of the research to previous literature (Saunders et al. 2009).

The focus group data was analyzed mainly based on the presented preliminary framework and selected value dimensions. Data derived from the interviews was then analyzed based on the same framework and the coded data from the consumer markets. This enabled to comparison between believes of interviewees and actual consumer value.

4.6 Quality of the research

There are multiple ways to evaluate the quality of the research. Lincoln and Guba (1985) suggested to evaluate the reliability of the qualitative research by estimating research *credibility, transferability, dependability, confirmability,* and *applicability*. This criterion was used to evaluate the reliability of this study. These criteria

The credibility of the research can be achieved when the results of the study are believable in the eyes of participants (Lincoln & Gupta 1985 p. 189: Wagner et al. 2010). After analyzing the results from the focus groups, workshops were organized to confirm the findings of this thesis. However, the focus groups were only conducted with suppliers, not with consumers. For this reason, the results from customer value perceptions are only interpretations of the paper suppliers. In addition, only one supplier per market area was included in this study, which might be a treat for the research credibility. Nonetheless, this research assumed that the paper suppliers were experts regarding customer value perceptions in selected market areas and were openly sharing their views in the focus groups.

The transferability of the study reflects on how well the given results can be generalizable (Lincoln & Gupta 1985 p. 316: Wagner et al. 2010). The customer perceptions were only examined in Turkey and in Finland, which would delimit the research result to consider only these too market areas. In addition, the study focuses only on the case company's internal knowledge of customer value perception of toilet tissues, which means that more research should be done in this area to confirm the overall situation in the industry.

The dependability of the study should be repeatable and the replication of the study with same results should be possible (Yin 2009). Even the focus groups in this study were implemented with case company's own tool, the same research settings should be possible to achieve. The details of the study are described to enable the replication of this study.

The confirmability (Wagner et al. 2010) of the research refers to researcher's role in the study. The findings of this research have been confirmed internally with the case company and externally with focus group participants. *The applicability* of study evaluates the methods suitability for the research (Wagner et al. 2010). Since the aim of this thesis was to gain holistic understanding of customer value perception, qualitative research settings offered good tools for this kind of research.

5 FINDINGS

This section presents the empirical findings of this research. First, the section will introduce empirical results from the Botnia IdeaBooster focus groups and discuss what kind of value end consumers perceive from toilet tissues. Next, the results from the interviews will be presented, where the main focus will be on how the consumer benefits are acknowledged in the case company business. Finally, the section will shed light on how customer value perceptions change along toilet tissue supply chain.

5.1 End consumer value in toilet tissue supply chain

Toilet tissues are **low interest products**, which mean that consumers do not use that much time when making the purchase decision. The consumption of low interest product is usually based on previous experiences and convenience. Still, consumers might switch or change the product if they are not happy with the provided quality or receive desirable offer. The following quite from Finnish participant support this claim and illustrate well the product meaning for the consumer:

“Toilet paper should fulfill needs and expectations of end-user. If he/she doesn't pay attention to the product while using it -it is most probably "Just right.””

- *Finnish focus group*

According to the focus group results, all presented value dimensions of consumers were somewhat important for the consumer in toilet tissue industry. Especially important value dimensions for end consumers in both markets were economic and functional value dimension. Figure 12 presents more closely customer value in Turkish and Finnish markets.

END USER IN FINLAND

- **ECONOMIC**
  - Reasonable price, quality-price ratio, price per package/roll, long lasting rolls
- **FUNCTIONAL**
  - Softness (surface softness and bulkiness) strength (*puncture resistance*, perforation strength, haptic feeling of strength) bulk/thickness, standard roll size, suitable packaging size, *suitable for cleaning and wiping*
- EMOTIONAL
  - Feeling of good quality, comfort, hand feeling, reliability, appearance (sharp look, white), hygiene
- SYMBOLIC
  - Product image, memories from the past, low interest category, *set of favourable brands*
- ENVIRONMENTAL
  - *Sustainability, eco-labels, certificates, recycled fibers*

END USER IN TURKEY

- **ECONOMIC**
  - Reasonable price, quality-price ratio
- **FUNCTIONAL**
  - Softness (surface softness and bulkiness), strength (*wet strength), flushability, scented products: used also as toilet fresheners, suitable for drying*, white
- EMOTIONAL
  - *Luxury feeling*, feeling of good quality, reliability, comfort, *scented tissues*, hygiene, appearance (white/colored paper)
- SYMBOLIC
  - *Brightness symbolize quality, good hygiene , but also chemicals*, brand is not that important
- ENVIRONMENTAL
  - Sustainability requirements developing in the future

Figure 12 Consumer value dimensions in Finland and Turkey.

5.1.1 Economic value dimension

Both Finnish and Turkish focus groups agreed that one of the most important value dimension for the customer was economic value dimension. The importance to have toilet tissue in **best possible trade-off** was repeatedly mentioned in the platforms. The economic value was seen in many customer segments as a key priority, since the price had to traditionally be low enough to ensure that the consumers will purchase the good:

"Price of final product is the most important parameter for Turkish customer."

– Turkish focus group

In Finland, economic value of toilet tissue related mainly to the **purchase cost of the product**, since the product did not cause any other monetary sacrifices. If examined more closely, what consumers considered as a good economical trade-off, the price of the product was naturally highlighted in the consumer processes. In the price comparisons, focus group believed that the most of the consumers compared prices mostly in roll and packaged bases:

"Price per roll is what consumers see it in a hurry. They might not see the length of the roll, but just compare the prices per roll. This of course differs per target group."

- *Finnish focus group*

"Price is important for normal consumer, who is making the decision at the shop."

- *Finnish focus group*

This means that the consumers were rarely ready to compare the actual content inside the package or in roll, but mostly compare the information that is easily noticeable and available. However, prices were often also considered as a proof of good quality. Some consumers were not willing to purchase cheap toilet tissue since they did not believe it would fulfill their quality expectations. This could mean that the price of the good would not only mean low purchase costs but also increase the reliability and image and this way symbolic value of the product. In Turkey, the results were also to this direction, even though the study failed to collect more detailed information on how the consumers evaluated product prices in this market area. Especially **good quality-price ration** was repeatedly mentioned in the focus group.

"Quality need to be good enough, if it is not, consumer won't buy product second time even with low price."

- *Finnish focus group*

5.1.2 Functional value dimension

Most of the consumer benefits mentioned in the focus groups related to functional value dimension. **Quality of the toilet tissue** was often mentioned as a key priority together with suitable price. If the quality of the paper was not good enough, the paper would easily be replaced with competitor's brand. Most of the quality features of the paper was related to paper use and properties linked to the functional value dimension of the goods. The paper softness and strength were benefits that continually came up in the focus groups and were considered to be related to paper quality in both markets:

"Quality need to be good enough, if it is not, consumer won't buy product second time even with low price."

- *Finnish focus group*

"Quality means strength against wetness together with softness."

- *Turkish focus group*

The **benefits of soft and strong toilet tissue** were quite expected, since soft and strong toilet tissue is many times globally seen as the goal. Paper strength keeps the paper together when using the goods. One major **difference between Turkey and Finland seemed to be the way of using toilet tissues**. In Finland, the use was traditionally linked to whipping and cleaning, where in Turkey, they mostly used water to clean. This means that in Turkey, the paper was mostly used for drying. For this reason, for example, the paper strength attributes differed between the markets:

"Main cleaning element here is the water. Toilet paper is used for drying."

- *Turkish focus group*

In Finland, the **strong feeling of the paper** came from ball burst strength and haptic feeling of strength. The paper strength was important for the consumers since it increased the reliability of the product, where puncture resistance was key attribute adding value for consumers. In consumer markets, the paper strength did not only link to the actual paper strength, as puncture resistance or paper tensile strength, but some consumers considered paper thickness and paper bulk as a strong paper. Paper bulk, thickness, and paper layers brought stiffness to the paper, which was also increasing the reliability feeling of the product. The thicker paper also increased the durability of the paper, since fewer paper sheets was needed when using thicker products. This way the paper bulk and thickness were also affecting to the consumer processes:

"Thick product is perceived trustworthy, strong enough paper. Thinner the paper, the more you need sheets."

- *Finnish focus group*

On the other hand, in Turkish focus group, the strength of the paper was many times linked to the **wet or rewetted strength**. Since consumers did not only use papers for wiping, the puncture resistance may not be as important, but the paper had to be momentarily strong when the tissue got wet. The strength against wetness had to be only for short period of time, because the paper had to be flushable and dissolvent. **Flushability** was probably important also in Finland, but was not mentioned in the group. This might be because in Finland the drains were relatively newer and did not, for this reason, block as easily. In addition, toilet tissue in Turkey might have been stronger against wetness, which created this kind of blockage problems more likely.

The use of soft toilet tissue is more comfortable and skin sensitive, and in Finland, it was one key quality attribute. However, the paper softness is hard to measure, and there are multiple factors affecting to the soft feeling of the product. According to the results, it seemed that the softness of the paper might not only mean **smooth surface of the paper sheet**, but the bulkiness of the paper increased the soft, **pillow like feeling of the paper**. This means that the consumers were not actually only preferring smooth but more likely pillow –like softness, which could be achieved not only with short fiber pulp but paper bulk. Smoother surface of the paper seemed to be more important when paper was used, for example, to replace hankies, where silky feeling was preferred.

In Turkey, softness of the paper was also seen important, and both surface softness and bulk softness were also preferred in this market:

"They evaluate both of them (surface and bulk softness)"

- *Turkish focus group*

Finnish focus group considered that the **convenience** of paper purchase, transport, and use was highly important for the customers. However, Finnish focus group believed that adding extra sheets to the toilet tissue roll did not increase the value of tissue. More closely, product attributes like standard size roll with around 150 sheets was seen to be suitable for the customer and they believed this should not be modified in order to increase the economic value of the product. However, the bigger roll size was seen as a factor that might affect to the toilet tissue brand. Stiffer toilet tissue was preferred, since it was more convenient to use and stiffer paper sheet rolls were more durable. Convenience was also preferred in the packaging as the consumers were valuing suitable package sizes and package solutions that were easy to carry home. In other words, also the package solutions were important for many consumers even if it did not affect the usage of the paper, but more to the product transport:

"Customer experience of a consumer product consists of functional and non-functional items. The selection of a not so expensive daily utility like toilet paper must be related to "convenience" both for buying and for using. "

- *Finnish focus group*

In Turkish focus group, the bulkiness of the paper was considered to link with paper durability:

"Customers choose bulky tissue because they believe it is more paper at the same price"

- *Turkish focus group*

5.1.3 Emotional value dimension

Many of the consumers desired functional benefits were actually linked to the emotional value dimension. The strength and thickness of the paper created the **image of reliable product** and softness increased the **pleasure** of using the good. Appearance of the paper was something that tried to appeal to **customer's feelings and feel good**:

"However, it is still very important to have certain strength level in order to give the trustworthy paper feel."

- *Finnish focus group*

"Softness combined to strength is the key to pleasant user experience"

- *Finnish focus group*

In the appearance of the toilet tissue, the well-performed perforation was essential for Finnish consumers. If the perforation of the paper was not well executed, the paper sheet did not tear of nicely from the roll, and the look of the paper might have seemed untidy. This could mean that even though consumers were not valuing extra decorative attributes of toilet tissue, rolls had to look clean and sharp. In Turkey, some of the consumers were preferring **luxury feeling of paper**, which was achieved by paper designs, colorful paper, and scented goods. The scent of the paper links also to functional value dimension, because people sometimes used toilet tissues as toilet fresheners in Turkey:

"Color and scent can bring luxury feeling."

- *Turkish focus group*

"Also you are right Turkish market like scent paper. It makes toilets odorous"

- *Turkish focus group*

On the other hand, in Finland, toilet tissues were not used often as decorative elements in toilets, and people did not desire colorful products. Even though totally colored papers were not desired, some twist in the sheets, like poems, was seen beneficial for some consumer segments. Consumers in Finland did not prefer scented toilet tissues and these features did not commonly add any additional value in the eyes of the end consumers.

5.1.4 Symbolic value dimension

In both markets, **the paper brightness and whiteness often symbolized the quality** of the paper and the brightness of the toilet tissue was seen essential. According to the Finnish focus group, high brightness of the toilet tissue was seen as high quality product, even in the cases where lower brightness toilet tissue had better quality attributes. Hence, it seemed to be that consumers think that the darker the paper, the worse the quality and grey or brownish paper was often not accepted:

"Consumers for some reason seem to think that the darker the paper is, the worse the quality is."

- *Finnish focus group*

In Turkey, the brightness and whiteness of the paper was linked also to **good hygiene**, which they valued a lot in the market. On the other hand, some consumers had negative image of white toilet tissue, since some of the consumers believed falsely that the white paper was produced using whitening chemicals:

"They think that White simulates good hygiene but some of them think that producers provides this White colour with bleaching chemical."

- *Turkish focus group*

"Most of the customers think that if it is white, the producer uses whitening agent so there is a wrong perception on that. On the other hand, they also think whiteness symbolizes cleanliness"

- *Turkish focus group*

The brand was important for many consumers in Finland, and it made the purchase decision easier in the stores. Consumers used mainly certain **group of brands** with same quality features. If typically used brand was not available, consumers purchased another brand from the same quality group. The selection of the product was often linked to the past, and consumers were often purchasing products that they were used to buy, and even what their family used to purchase in their childhood. The strong advertisement messages were used to modify customer's image of the product. In Turkey, it seemed that the brand did not play as important role in that market:

"Consumers are loyal to selection of, often very similar, brands. They have a "consideration group". If their preferred brand is out of stock they will select another product."

- *Finnish focus group*

"I think consumers don't care what the brand in tissue is as long as the quality and price are ok"

- *Turkish focus group*

5.1.5 Environmental value dimension

Environmental aspects were normally considered inside the emotional and symbolic value dimension, but since the case company was a forerunner in sustainability in pulp and paper industry, these aspects were looked separately. **Sustainability** was important in both markets, but where in Turkey, the consumers were just recently starting to consider sustainable side of the offering, in Finland the value had longer history. In Finland and in tissue products, sustainability was often seen from eco labels and certificates. In toilet tissues, sustainability features did not always increase the prices of the goods, but could even make them cheaper. The toilet tissues made from recycled fibers were many times seen more sustainable in the eyes of end user, but this affected to the product quality. In Finland, paper manufacturers believed that the consumers would value strong sustainability stories, where sustainability and domestic value would be informed from the beginning of the toilet tissue supply chain to the end.

5.2 Value dimensions of toilet tissue supplier

In the in-depth interviews, the sales personnel recognized many technical benefits regarding Metsä Fibre's offering. **Consistent fiber quality** was one major benefit for all customers, since this way customers could optimize their own processes better. In quality, side customers were valuing good quality, but were not willing to pay extra for over high-quality products. This meant that, in many cases, the fiber quality only needed to be **good enough**, and no extra effort should have been done to achieve extra good quality. This was, of course, also dependent of the customer. More detailed benefits and customer value dimensions for pulp in toilet tissue industry are presented in figure 13. **Softness** and **strength** were attributes that were continuously repeated in the interviews and especially **tensile strength** was seen to be important for paper manufacturers:

"Customers don't want over quality pulp, they don't want bling-bling product"

- *Interviewee A*

"Mainly we are talking probably about couple of characteristics which are important especially for the tissue guys. One is tensile strength. The other one is softness."

- *Interviewee E*

TISSUE SUPPLIER

- **ECONOMIC**
  - Pulp price. cost efficiency, lower energy costs, production efficiency
- **TECHNICAL**
  - Consistant fiber quality, good enough quality, clear from impurities, softness, bulk, strength, tensile strength, hygiene, specific fiber mix, tailored goods, well working operative processes
- SERVICE
  - Reliable delivery, good product availability, quick responses, technical service, production-know-how support, support in customer's business
- SOCIAL
  - Reliable supplier, open communication channels and fluent information flow, professional reputation, cooperation, direct contact with supplier
- ENVIRONMENTAL
  - Certified goods (especially FSC), eco-labels, domestic origin (in Finland), environmentally friendly business (in the whole life cycle)

Figure 13.Value dimensions of toilet tissue supplier.

The pulp and fiber prices were seen to be the most important benefits for the customer in paper supplier side. In pulp industry, the fiber price is almost 70 % of the total production cost, which means that the price negotiations in the industry are implemented in the high level of the organization. The fiber price in the industry is quite transparent and global. Consequently, **customer specific rebates** had a big role in price negotiations. The price of the pulp was not only a way to create economic value for the customer, but paper **suppliers were also trying to optimize their long fiber usage and achieve lower energy costs and better production efficiency.** Metsä Fibre tried to full fil these needs by offering technical support and services for their customers:

"The price of the pulp plays big role in this industry"

- *Interviewee B*

"The pulp price is quite global and transparent. We offer customer specific rebates from the market price."

- *Interviewee D*

"We try to offer lower total cost of ownership for our customers, by lowering customers' production costs"

- *Interviewee C*

Services was seen essential in Metsä Fibre's offering and most of the interviewees believed that company provided **best technical services and support** for their customers. Joint customer projects tried to optimize customer processes and production and this way lower the production costs of the customer. In many cases, customers were keeping a quite low pulp storage level, which means that the deliveries had to be on time and as promised and there needed to be pulp available:

"We can offer services to make end product to be better quality and more cost efficient"

- *Interviewee B*

Social value dimension of the offering was important in the pulp industry, since the customers wanted to do business only with **reliable suppliers. The brand image** was seen somewhat important, but most considered that it did not offer any additional value for the customer. Most interviewees thought that Metsä Fibre brand was not used further in a supply chain, in customer's business. **The relationships** between organizations were seen crucial and the level of shared information and openness related to the type of relationships and customer company politics:

"We have well-known brand, since we have operated in the market for such a long time. But the question, if we could differentiate ourselves with that brand… That is a good question and we should ask from our customers if they can use our brand in their business."

- *Interviewee C*

"These (social benefits) are extremely important. These are actually corner stones in our business. So our deliveries and our operations have to be reliable, so we have to operate as promised."

- *Interviewee C*

Environmental value was important for many customers in paper industry, since the production of paper is still burdening the environment. The importance of this dimension varied across market areas. In Finland, customers were demanding **certified pulp** and expecting **certain level of sustainable activities** from suppliers, since they wanted to be able to have eco-labels like Nordic Ecolabel. In Turkey, the importance of these green activities was rising and customers were demanding some certified pulp, but the level of environmental processes were not yet at the same level as they were in Finland, for example. In Finland, paper suppliers were also valuing the domestic origin of the fiber:

"These are requirements: environmental operations and pulp certificates have to be okay, if you are operating in Finland. If these are not okay, you cannot operate in the market."

- *Interviewee B*

Overall, it seemed that customers in different market areas were valuing quite similar benefits in business-to-business side and no big differences in the value could be recognized in economic and technical value dimension. However, the way of doing business and the culture was shaping the business in the market areas and was this way shaping especially social value dimension of customers. Since the relationships and openness in the business was varying, also customers' willingness to make use of Metsä Fibre's services differs. In Finland, the ownership structure of the company might affect the customers' willingness to cooperate and share information. The customers may have feared that the shared expertise and information could leak to their competitor:

"In Europe, many of the tissue suppliers do not want to do too close cooperation with us, because our ownership structure. They fear that their knowledge may end up to their competitors."

- *Interviewee B*

5.2.1 Changes in customer value perception along the toilet tissue supply chain

Figures 14 and 15 combine value dimensions of tissue suppliers and end consumers in Finland and Turkey. The figures present **how the customer value perception differed across different market areas and between market environments**. The figures also show how some of the value dimensions were equally important for all actors in the chain. **All examined actors were valuing economic value dimension and were looking for economic benefits from the offering**. Even though the offering was changing along the chain, the final price of the goods seemed to be important for all. One interesting similarity follows through the whole toilet tissue supply chain, since all actors were only acquiring **good-enough quality**. The meaning of good quality was many times unclear. This seems to be an information gap where maybe even over quality was offered in order to avoid failing the customers.

TISSUE SUPPLIER	END USER IN TURKEY
• **ECONOMIC** • Pulp price. cost efficiency, lower energy costs, production efficiency • **TECHNICAL** • Consistent fiber quality, good enough quality, clear from impurities, softness, bulk, strength, tensile strength, hygiene, specific fiber mix, tailored goods, well working operative processes • SERVICE • Reliable delivery, good product availability, quick responses, technical service, production-know-how support, support in customer's business • SOCIAL • Reliable supplier, professional reputation, cooperation, direct contact with supplier • ENVIRONMENTAL • Sustainability requirements developing in the future	• **ECONOMIC** • Price, quality-price ratio, durability • **FUNCTIONAL** • Good enough quality, softness (surface softness and bulkiness), strength (*wet strength*), bulk/thickness, flushability, used sometimes as toilet freshner, suitable for *drying* purposes • EMOTIONAL • Luxury feeling, hygiene • SYMBOLIC • Good quality, product safety • ENVIRONMENTAL • Sustainability reguirements developing in the future

Figure 14 Part of the toilet tissue supply chain in Turkey.

TISSUE SUPPLIER	END USER IN FINLAND
• **ECONOMIC** • Pulp price. cost efficiency, lower energy costs, production efficiency • **TECHNICAL** • Consistent fiber quality, good enough quality, clear from impurities, softness, bulk, strength, tensile strength, hygiene, specific fiber mix, tailored goods, well working operative processes • SERVICE • Reliable delivery, good product availability, quick responses, technical service, production-know-how support, support in customer's business • SOCIAL • Reliable supplier, professional reputation, cooperation, direct contact with supplier • **ENVIRONMENTAL** • Certified goods (especially FSC), eco-labels, domestic origin (in Finland), environmentally friendly business (in the whole life cycle)	• **ECONOMIC** • Reasonable price, quality-price ratio, price per package/roll, long lasting rolls • **FUNCTIONAL** • Softness (surface softness and bulkiness) strength (puncture resistance, perforation strength, haptic feeling of strength) bulk/thickness, standard roll size, suitable packaging size, suitable for cleaning and wiping • EMOTIONAL • Feeling of good quality, comfort, hand feeling, reliability, appearance (sharp look, white), hygiene • SYMBOLIC • Product image, memories from the past, low interest category, set of favourable brands • ENVIRONMENTAL • Sustainability story, eco-labels, certificates, recycled fibers

Figure 15. Part of the toilet tissue supply chain in Finland

The empirical findings confirm that **customer value changed along the supply chain because of the differences in B-to-B and B-to-C markets**. This could be seen from the figures since the value dimensions and their importance differed along the toilet tissue chain. For example, tissue suppliers were evaluating and demanding service and social value in the industry where as consumer value included emotional and symbolic dimensions. In addition, the benefits inside these value dimensions were naturally in different stages, since the offering was developing along the chain.

The differences between supplier value dimensions were not that significant and the differences were mainly in some technical attributes included in technical value dimension. It could be seen from the interviews that the customer value was many times considered trough economic value dimension and other value dimensions were maybe not considered that closely**. One significant difference in the value of pulp suppliers was the environmental value dimension**. In Finland it seems, that paper suppliers were demanding certified goods and expecting certain sustainability level from the pulp supplier. In Turkey, these activities were not yet in the same level, which means that the sustainability activities of pulp supplier were not as much valued in Turkey. This again confirmed how value change because of different cultural and political surroundings.

In consumer side, more differences in value dimensions could be recognized. **Customers were using products differently in different market areas and had different understanding of what attributes created best benefits for comfortable and reliable usage.**

Finnish focus group believed that consumers might value sustainability story from the whole life cycle of toilet tissue. Currently, the environmental performance of pulp supplier could only be seen from the achieved eco-labels or certificates. Sustainability story from the whole supply chain could offer more value for Finnish consumer, since the fibers are from the Finnish forests and soon to be produced in the new more environmentally friendly bioproduct mill. This message of sustainability activities of pulp supplier is currently disappearing from the chain since consumers are not informed about the sustainability activities of supplier. Same type of information gap can also be seen in Turkish market. **Consumers were demanding white and bright tissue, but might sometimes be afraid of whitening chemicals.** Since Metsä Fibre’s pulp is safe to use and produced with strict health requirements, these chemicals are not a problem when producing paper from Metsä Fibre’s offering. Consumers could be interested in the origin of the fiber and may have some addition benefit if informed that the pulp is from clean Finnish forests. From these notions it can be seen, that the **Metsä Fibre’s image is not fully deployed in paper supplier side.**

Even though there were not many miss-matches in the customer value perceptions along toilet tissue supply chain, some problems were found from the in-depth interviews. The pulp industry is quite old fashion where suppliers have a lot of power. **The business is quite price driven and buyers might not even want to talk about other value dimensions of the offering.** When sales persons were asked to talk about end consumers, many firstly admitted that this was not their best competitive area. Interviewees were using quite uncertain expressions like “probably” or “presumably”. In addition, the knowhow differed across the sales persons, where **some of the interviewees were more aware of consumer needs than the others.** The discussion was still mainly **limited to technical attributes of the customer value, where emotional and symbolic value dimensions were not much considered.** All interviewees nonetheless admitted that consumers were not really considered in the business-to-business surroundings, where the discussion was based mainly on the technical benefits and economic value of the offering:

“I think we consider end consumers indirectly. So, when our customers are telling their requirements, well these requirements come from the market or from the process runnability.”

- *Interviewee B*

“Well, of course we talk about things like potential softness and it seems that there is a trend of using soft toilet tissue in the market. ‘…’ And then there is strength. But we have to be realistic. We sell the pulp we happen to produce and the quality of that depends on the raw material.”

- *Interviewee E*

"But if the question is, do we consider strictly end consumer needs in different market areas, the answer is: probably not."

- *Interviewee C*

Many of the interviewees believed that **many of the tissue suppliers were not willing to talk about the end consumer value, since they fear that this knowledge would leak to their competitors.** The information was not shared through the whole supply chain, which creates clicks inside the toilet tissue chain. It seems that in toilet tissue supply chain, there is no common strategies between the actors to provide best possible offering for the end consumer, but all the participants are acting separately offering what they currently have.

In addition, it seems that many of the **sales persons did not have the confidence to talk about other benefits of their offering for their customers**. **Technical meetings and price negotiations have been quite separate business operations**, where sales persons are not required to talk much about other benefits for the customer. Technical argumentation and expertise may not be strong enough to understand customers' business**. In addition, some interviewees admitted that sometimes pulp suppliers and customers are talking about different attributes, even though talking about same benefit**. For example, when talking about strength, pulp suppliers mainly concentrate on the tensile strength, even paper manufacturer would also be interested in the wet strength or puncture resistance.

"Well if start to examine what strength means, it is not unfortunately so easy. Currently we are talking about the wrong kind of strength and we do not yet have the technical competence to talk about the same strength."

- *Interviewee C*

"The prices are discussed in different forums. In our technical meetings we do not discuss about price. That is all technical discussion."

- *Interviewee C*

6 DISCUSSION AND CONCLUSION

The aim of this research was to examine the customer value perceptions of toilet tissue and to study how the customer value perceptions change along the chain. In addition, the study explored how consumers were acknowledged in the business-to-business surroundings. The literature review was conducted on supply chains, customer value, and value creation along the supply chain.

The empirical part of the research included a case study. In order to develop understanding of customer value perception in different market areas, the research conducted two online focus groups with toilet tissue suppliers. After this, total of five in-depth interviews were conducted with professionals from Sales and Customership departments. The findings of these focus groups and interviews are presented in the section 5. Understanding customer value perceptions of toilet tissue in business-to-business surroundings helps Metsä Fiber to better communicate their offerings' value for their customers. In this way, they can understand paper suppliers' needs more deeply.

6.1 Answers to the research questions

The aim of this section is to answer to the research question of this study. The aim of the first research question was to find out, what kind of customer value consumers perceive from toilet tissues, identify possible differences in customer value perceptions in different market areas and try to understand how customer value perceptions change along the toilet tissue supply chain. The goal of the second research question was to learn more about firm's internal knowledge and practices. The research questions and answers are described in table 8.

Table 8. Research questions and answers.

RESEARCH QUESTIONS	FINDINGS
1. What kind of value consumers perceive from toilet tissues?	Overall consumers consider economic, functional, emotional, symbolical, and environmental value dimension in toilet tissue business. Especially functional, emotional, and economical value dimensions are appreciated. Consumers are looking for reliability, comfort, and low enough price.
a. How does the customer value perception of toilet tissue differ between selected market areas?	The culture and surrounding environment affect to costumer value perception. In Finland, environmental value is quite important for many customers. In Turkey, some consumers are concerned about product safety. Even though in other ways customer value perceptions are quite similar in the markets, valued product attributes differ.
b. How do the value perceptions change along the toilet tissue supply chain?	The customer value perception changes especially because the market environments change. In b-to-b markets customer value include mainly economic and technical dimensions, where as in consumer markets customers are looking for value that is linked to their feelings. In addition, the attributes creating customer value change. For example, strength in pulp business refers to tensile strength characteristics, where as in consumer business strength might be linked to puncture resistance or wet strength. The economic value dimension considers in business-to-business side the total cost of ownership. In consumer markets, the consideration is mainly limited to the final price of the product.
c. Are there any mismatches in customer value perception between paper supplier and end consumer?	Some of the provided environmental value and provided product safety messages are leaking from the chain, when consumers are not aware of origin of the fiber. Currently, information from consumers do not efficiently reach pulp supplier, which may lead to miss understanding of customer value perceptions of consumers.
2. How are the consumer benefits acknowledged in the case company?	Currently b-to-b and b-to-c markets are considered quite separately in pulp industry where customer value perceptions of consumers are not traditionally considered.

6.2 Theoretical implications

The aim of this thesis was to examine how customer value perception changed along the toilet tissue supply chain. Despite the literature has in the past examined value creation processes in the supply chain level (Soosay et al. 2012), the focus has mainly been limited to single actor and its inputs in the chain (Kohtandaraman & Wilson 2001). The literature of supply chains has rarely linkage to the value creation literature (Wagner & Eggert 2016) and the supply chain research have mainly been limited to consider different material and information flows (Seppälä 2014: Gereffi & Lee 2016). This thesis combined these perspectives to gain more understanding on customer value perception in supply chain context. Especially this study shed light on how customer value perception changed along the supply chain.

The empirical findings of this research presented an example of how customer value perception changed along the toilet tissue supply chain. The results showed that customer value perceptions did not change only because of the different value dimensions in the B-to-B and B-to- C markets, but the attributes creating customer value perception differed between supplier and end consumer and even between end consumers across selected market areas. In addition, this thesis showed how some of the created value in the supply chain might disappear along the chain. Previous literature has identified that this value leakage might result from the incoherent information flow through the chain (e.g. Soosay et al. 2012). In addition to the problems in information sharing between the members, **this study highlights how some of the created value might leak when the upstream supplier's brand is not utilized along the chain**.

The importance of fluent information flow in the supply chain system has been recognized to be crucial when building superior customer value in the supply chains (Soosay et al. 2012: Wagner & Eggert 2016). However, the study revealed that **information sharing between different organizations might still be seen more as a threat and not as possibility.** Producers might not be willing to share their knowledge of customer value perception in different markets since they were afraid that this would leak to their competitors. More open relationships might help the suppliers to develop their own offerings to be better suitable for their customers and help suppliers to develop and inform most important customer benefits.

It also seems that the **absence of information sharing may not only be a result of members' relationships but also a result from internal organizational attitudes**. Organizations themselves have to understand the importance of customer value perception along the supply chain in order to make the most use of this knowledge. This understanding should also be deployed through the whole internal organization. The sales personnel knowledge may currently be dependent on their own interest and backgrounds. Deeper understanding of the benefits gained from deeper knowledge of changing customer value perceptions might also increase the motivations of the employees to gather and exploit this knowledge. Especially in cases where information is not commonly shared inside the supply chain, organizations have to be especially active to gather data from different markets.

Currently the literature has considered the role of suppliers and customers in the value creation processes (e.g. Grönroos & Voima 2013) and examined value creation in the supply chain from the individual firm's point of view (Kothandaraman & Wilson 2001). The empirical findings of this research pointed out the importance of customer's customer and even end user, since the customer value perception was built based on its customer's needs. Current literature considers supplier's and customer's roles in the value creation literature (Grönroos & Voima 2013). **The findings of this thesis suggest that also end user's needs should be considered in value creation processes, since in the end they are the ones consuming the final product in the supply chain.**

6.3 Managerial recommendations

The empirical data of this thesis implied that the paper and pulp business is still operating quite separately, where information about customer value perceptions are not shared. More open relationships and information channels might create benefits for all actors in the chain. Based on the empirical findings of this study, thesis offers three managerial recommendations.

More information about customer value perception of toilet tissue should be gathered from different market areas and the information of the different customer value perceptions should be informed to sales personnel. After understanding the differences in customer value perceptions in different markets, these differences should be informed to personnel working closely with customers. The study revealed that customer value perception of toilet tissue was not often specifically considered in business-to-business surroundings. The understanding of the customer value perception might support the sales activities, since pulp supplier could understand more deeply, what kind of benefits paper suppliers try to achieve in different market areas.

The possibility to offer something for the end user should be examined and employed. The study revealed that consumers might value sustainability story from the whole supply chain. Since Metsä Fibre is in many ways a forerunner in sustainability operations, this might offer benefits in consumer markets. The more transparent brand could offer an opportunity for the company to differentiate the offering from the competitors, if these consumer demands can be better answered with Metsä Fibers offering. The same kind of thinking also applies in Turkey, where consumers might be afraid of whitening chemicals. Safe and clean pulp supplier brand might create some benefits in the market, if paper supplier takes advantage of the responsible pulp supplier’s brand.

The business in pulp industry should be shift from the economic value thinking to consider more widely all customer value dimensions. Currently the price negotiations and technical meetings are implemented in different forums. To better differentiate offering Metsä Fibre could try to brake these boundaries by concentrating customer value perceptions more widely. This could help the company to justify their higher prices when communicating their offering's lower total cost of ownership.

6.4 Limitations and future research

This Master's Thesis offers a range of possibilities for future research. The quality of the research section suggested that the customer value perceptions of toilet tissues should be examined next by doing consumer research. This could offer more understanding especially about the attributes that create consumer value. In addition, deeper consumer research should be done to confirm results of this study. Results from Finnish and Turkish markets showed differences in customer value perceptions, which would imply that other markets should also be examined. In consumer side, the research could also wider the perspective to other market areas.

From the case company perspective, next research topic could be to internally examine how value communication is executed inside the firm and how sales personnel try to deliver value for their customers. The study suggested that the value-add marketing is hard to implement in process industry and many thought that there were some difficulties getting customers committed to Metsä Fibre's service side. The commitment of the customers could help the customers to see to the total cost of ownerships, which could eventually lead to lower impact of fiber price.

The current study only considered values of two actors along the toilet tissue supply chain. To receive more understanding how customer value perceptions change along the supply chain, multiple actors, like distributors, should be examined simultaneously. Future studies should also be implemented in different industries.

REFERENCES

Ali-Yrkkö J., Rouvinen P. Slicing Up Global Value Chains: a Micro View. *Journal of Industry Competition and Trade*. Vol. 15 (1). pp 69-85

Al-Mudimigh A., Mohammed Z., Ahmed A. (2004). Extending the concept of supply chain: The effective management of value chains. *International Journal of Production Economics.* Vol. 87(3). pp. 309-320.

Anderson J., Narus J. (1998). Business marketing: Understand what customers value. *Harvard Business Review*. Vol. 76(6). pp. 53-65.

Anderson, J. C., Narus, J. A., & Narayandas, D. (2009). Business market Management: Understanding, Creating and Delivering Value. New Jersey: Pearson Education.

Anker T. Sparks L., Moutinho L., Grönroos C. (2015). Customer dominant value creation – A theoretical response to the recent call for a consumer dominant logic for marketing. *European Journal of Marketing*. Vol. 49 (3/4). pp. 532-560.

Babin J., Darden W., Griffin M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*. Vol. 20. pp. 644-655.

Barlow A,. Lee F. (2005). Online value network linkage: integration, information sharing and flexibility. *Electronic Commerce Research and Applications*. Vol. 4(2). pp. 100-112.

Barratt M., Barratt R. (2011). Exploring internal and external supply chain linkages: Evidence from the field. *Journal of Operational Management*. Vol. 29(5). pp. 541-528.

Brooks J., McCluskey S., Turley E., King N. (2015). The Utility of Template Analysis in Qualitative Psychology Research. *Qualitative Research in Psychology.* Vol. 12(2). pp. 202-222.

Capeda-Carrion I., Martelo-Landrogeuz S., Leal-Rodíguez A., Leal-Millán A. (2017). Critical processes of knowledge management: An approach toward the creation of customer value. *European Research on Management and Business Economics*. Vol. 23(1). pp.1-7.

Carlsson D., D'Amours S., Matrel A., Rönnqvist M. (2009). Supply Chain Planning Models in the Pulp and Paper Industry. *Information Systems and Operational Research.* Vol. 47(3). pp. 167-183

Cetin G., Akova O., Fazil K. (2014). Components of experiential value: Case of hospitality industry. *Social and Behavioral Science*. Vol. 150. pp. 1040-1049.

Creswell, J.W. (2013). Qualitative inquiry & research design choosing among five approaches, SAGE Publications, Thousand Oaks, CA. 448 s.

Creswell J. (1998). Qualitative Inquiry and Research Design. Choosing amount Five Traditions. SAGE Publications. Thousand Oaks. CA.

Cristopher M., Gattorna J. (2004). Supply chain cost management and value-based pricing. *Industrial Marketing Management*. Vol. 34. pp. 115-121

Cristopher M., Gattorna J. (2005). Supply chain cost management and value-based pricing. *Industrial Marketing Management*. Vol. 34(2) pp. 115- 121.

Diesen M. (2007). Economics of the Pulp and Paper Industry. Finnish Paper Engineers' Association/Paperi ja Puu Oy. 2nd edition. Helsinki. 222 p.

Dubois A., Gadde, L. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*. Vol. 55 pp. 553−560.

Eggert A., Ulaga W., Schult F. (2006). Value creation in the relationship life cycle: A quasi-longitudinal analysis. *Industrial Marketing Management.* Vol. 35(1). pp. 20-27.

Eriksson P., Kovalainen A. (2008). Qualitative Methods in Business Research. SAGE Publication. Thousand Oaks. CA. 337 pp

Evans J., Berman B. (2001). Conceptualizing and Operationalizing the Business-to-Business Value Chain. *Industrial Marketing Management*. Vol. 30(2). pp. 135-148.

Finnish Forest Industries. (2017). Industry. Paper pulp. How much wood do you need to make paper. [Accessed 22.2.2017] Available from FFI's web site.

Flint D. (2004). Strategic marketing in global supply chains: Four challenges. *Industrial Marketing Management*. Vol. 33(1). pp. 45-50.

Flint D., Blocker C., Boutin P. (2011). Customer value anticipation, customer satisfaction and loyalty: An empirical examination. *Industrial Marketing Management*. Vol. 40(2). pp. 219-230.

Flint D., Woodruff R., Gardial S. (2002) Exploring the phenomenon of Customer's desired value change in a business-to-business context. *Journal of Marketing*. Vol. 66. pp. 102-117.

Fearne A., Martinez M., Dent B. (2012). Dimensions of sustainable value chains: implications for value chain analysis. *Supply Chain Management: An International Journal.* Vol. 17(6) pp. 575 – 581

Fleischmann, B., Meyr, H., and Wagner, M. (2002). "Advanced Planning", In Stadtler, H. and Kilger, C. Supply Chain Management and Advanced Planning – Concepts, Models, Software and Case Studies. 2nd edition. Springer Verlag, pp. 71–96.

Gadde L., Snehota I. (2000). Making the Most of Supplier Relationships. *Industrial Marketing Management.* Vol. 29(4). pp. 305-316.

Gereffi, G. (1994). The organisation of buyer-driven global commodity chains: how US retailers shape overseas production networks: in Gereffi, G. and Korzeniewicz, M. (Eds). Commodity Chains and Global Capitalism. Praeger. Westport. CT. pp. 95-122

Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*. Vol. 48(1). pp. 37-70

Gereffi, G. and Lee, J. (2012). Why the world suddenly cares about the global Value Chains. *Journal of Supply Chain Management*. Vol. 48(3). pp. 24-32.

Gereffi G., Humphrey J., Sturgeon T. (2005). The governance of global value chains. *Review of International Political Economy*. Vol. 12(1). pp. 78-104.

Gereffi G.. Lee J. (2016). Economic and Social Upgrading in Global Value Chains and Idustrial Clusters: Why Governance Matters. *Journal of Business Ethics*. Vol.133(1), pp.25-38

Grönroos C. (2011). A service perspective on business relationships: the value creation, interaction and marketing interface. *Industrial Marketing Management.* Vol. 40(1). pp. 240-247.

Grönroos C., Voima P. (2013). Critical service logic: Making sense of value creation and co-creation. *Journal of the Academic Marketing Science*. Vol. 41(2). pp. 133-150.

Haas A., Snehota I., Corsaro D. (2012). Creating value in business relationships: The role of sales. *Industrial Marketing Management.* Vol. 41(1) pp. 94-105

Holbrook M. (1999). Consumer Value: A Framework for Analysis and Research. Psychology Press.

Holbrook M. (1994). The nature of customer value: an axiology of services in the consumption experience. *Service Quality: New Direction Theory Practices.* Vol. 21. pp. 21–71.

Hallikas J., Karvonen I., Pulkkinen U., Virolainen V., Tuominen M. (2004). Risk management processes in supplier networks. *Intenational Journal of Production Economics*. Vol. 90 (1). pp. 47-58.

Hansen J., Beitelspacher L., Deitz G. (2013). Antecedents and consequences of consumers‘comparative value assessments across the relationships life cycle. *Journal of Business Research*. Vol. 66(4). pp. 473-479.

Harland C., Brenchley R., Walker H. (2003). Risk in supply networks. *Journal of Purchasing & Supply Management*. Vol. 9(2) pp. 51-62.

Holopainen H. (2014). Contextualizing value proposition: Examining how consumers experience value proposition in their practices. *Australian Marketing Journal.* Vol. 22(2). pp. 103-110.

Inès G., Herbert C. (2016). Linking usage and shopping: How value experiences can distinguish consumers. *Journal of Retailing and Consumer Services.* Vol. 30. pp. 165-174.

Jaakkola, E., Hakanen, T. (2013). Value co-creation in solution networks. *Industrial Marketing Management.* Vol. 42(1). pp. 47 –58.

Keränen, J. (2014). Customer value assessment in business markets. Lappeenranta University of Technology.

Kumar V., Werner R. (2016) Creating Enduring Customer Value. *Journal of Marketing.* Vol. 80. pp. 36-68.

Kothandaraman P., Wilson D. (2001). The Future of Competition: Value-Creating Networks. *Industrial Marketing Management*. Vol. 30(4). pp. 379-389.

Lacoste S. (2016). Sustainable value co-creation in business networks. *Industrial Marketing Management.* Vol. 52. pp. 151-162.

Lambert D., Cooper M. (2000). Issues in Supply Chain Management. *Industrial Marketing Management*. Vol. 29(1). pp. 65-83.

Lovelock, C. (1995). Competing on service: technology and teamwork in supplementary services. *Strategy & Leadership*. Vol. 23(4). pp. 32-47.

Lehoux N., D'Amours S., Frein Y., Langevin A., Penz B. (2011). Collaboration for a two-echelon supply chain in the pulp and paper industry: the use of incentives to increase profit. *Journal of Operational Research Society*. Vol. 62(4). pp. 581-592.

Lehoux N., D'Amours S., Langevin A. (2008) A Win-Win Collaboration Approach for a Two-Echolon Supply Chain: A Case Study in the Pulp and Paper Industry. Interuniversity Research Center on Enterprise Networks, Logistics and Transportation.

Levitt T. (1980). Marketing Success Through Differentiation—of Anything. *Harvard Business Review*. Vol. 58(1). pp. 83–91.

Lincoln Y., Guba E. (1985). Naturalistic enquiry. Beverly Hills. CA: Sage.

Metsä Fibre. (2017). Annual report 2016.[Accessed 2.3.2017.] Available from Metsä Fibre website.

Metsä Tissue. (2017). Media: Case Stories: 7 facts about toilet paper. [Accessed 6.2.2017.] Available from Metsä Tissue website.

Martelo S., Barroso Castro G., Cepeda-Carrión G. (2013). Developing an integrated vision of customer value. *Journal of Services Marketing.* Vol 27(3). pp. 234-244.

Matthyssens P., Bocconcelli R., Pagano A., Quintens L. (2016). Aligning Marketing and Purchasing for new value creation. *Industrial Marketing Management.* Vol. 52(1). pp. 60-73.

Meehan J., Bryde D. (2011). Sustainable procurement practice. *Business Strategy and the Environment*. Vol. 20(2). pp. 94–146.

Mishra D., Sharma R., Kumar S., Dubey R. (2016). Bridging and buffering: Strategies for mitigating supply risk and improving supply chain performance. *International Journal of Production*. Vol. 180. pp. 183-197.

Papageorgiou L. (2009). Supply chain optimization for the process industries: Anvancess and opportunities. *Computers and Chemical Engineering*. Vol. 33. pp. 1931–1938.

Patala S., Jalkala A., Keränen J., Väisänen S., Tuominen V., Soukka R. (2016). Sustainable value propositions: Framework and Implications for technology suppliers. *Industrial Marketing Management.* Vol 59. pp. 144-156.

Paulapuro H. (2000). Papermaking Science and Technology – Paper and Board Grades. Fapet Oy. Jyväskylä, Finland. 134 p.

Peck H. (2006). Reconciling supply chain vulnerability, risk and supply chain management. *International Journal of Logistics Research and Applications* .Vol. 9(2). pp.127–142.

Pesonen, H. (2001). Environmental management of value chains promoting life-cycle thinking in industrial networks. *Greener Management International*. Vol. 33 pp. 45-58.

Porter M. (1985). Competitive Advantage – Creating and Sustaining Superior Performance. A division of Macmillan, Inc. 866 Third Avenue, New York, N.Y. 10033. Collier Macmillan Publisher. London. p. 555.

Popp D., Hafner T., Johnstone N. (2011). Environmental policy vs. public pressure: Innovation and diffusion of alternative bleaching technologies in the pulp industry. *Research Policy.* Vol. 40(9). pp. 1253-1268

Prior, D. & Marcos-Cuevas, J. (2016). Value co-destruction in interfirm relationships: The impact of actor engagement styles. *Marketing Theory.* Vol. 16(4). pp. 1-20.

Pöyry (2017). Tissue value chain steps – From fiber to channels.

Rintamäki T., Kirves K. (Article in press). From perception to proposition: Profiling customer value across retail contexts. *Journal of Retailing and Consumer Services*.

Rintamäki, T., Kuusela, H., Mitronen, L. (2007). Identifying competitive customer value propositions in retailing. *Managing Service Quality.* Vol. 17(6). pp. 621-634.

Roller M., Lavrakas P. (2015). Applied Qualitative Research Design – A Total Quality Framework Approach. New York. The Guilford Press. p. 398.

Saunders M., Lewis P., Thornhill A. (2009). Research methods for business students. 5th edition. Pearson Education Limited. England. 614 pp.

Seppälä T., Kenney M., Ali-Yrkkö J. (2014) Global supply chains and transfer pricing: Insight from a case study. *Supply Chain Management: An International Journal.* Vol. 19(4). pp. 5445-454.

Sheth, J., Newman, B., Gross, B. (1991). Why we buy what we buy: a theory of consumption values. Journal of Business Research. Vol. 22(2). pp. 159–170.

Shah N. (2005). Process industry supply chains: Advances and challenges. *Computers & Chemical Engineering*. Vol. 29. pp 1225-1235.

Skippari M., Laukkanen M., Salo J. (2016). Cognitive barriers to collaborative innovation generation in supply chain relationships. *Industrial Marketing Management*. Article in press.

Szabó L., Soria A., Forsström J., Keränen J., Hytönen E. (2009). A world model of the pulp and paper industry: Demand, energy consumption and emission scenarios to 2030. *Environmental Science & Policy.* Vol. 12(3) pp. 257-269.

Sofidel Group. (2017). Sofidel Group: Paper production. [Accessed 7.2.2017.] Available from Sofidel website.

Soosay C., Fearne A., Dent B. (2012). Sustainable value chain analysis – a case study of Oxford Landing from "vine to dine". *Supply Chain Management: An International Journal*. Vol. 17(1). pp. 68 – 77.

Stake R. (1995). The Art of Case Study Research. Thousand Oaks. CA: Sage.

Stake R. (2000). 'Case studies'. In N.K. Denzin and Y,S Lincoln (eds) Handbook of Qualitative Research. Thousand Oaks. CA: Sage. pp. 435-454.

Sweeney J., Soutar G. (2001). Consumer perceived value: the development of a multiple tem scale. *Journal of Retailing.* Vol. 77(2). pp. 203-20.

Tang C., Tomlin B. (2008). The power of flexibility for mitigating supply chain risks. *International Journal of Production Economics*. Vol. 116(1). pp. 12-27.

Terho H., Haas A., Eggert A., Ulaga W. (2012). 'It's almost like taking the sales out of selling'- Towards a conceptualization of value-based selling in business markets. *Industrial Marketing Management*. Vol. 41(1) pp. 174-185.

Tuli K., Kohli A., Bharadwaj S. (2007). Rethinking Customer Solutions: From Product Bundles to Relational Processes. *Journal of Marketing*. Vol. 71(3). pp. 1-17.

Töytäri P., Rajala R., Alejandro T. (2015) Organizational and institutional barriers to value-based pricing in industrial relationships. *Industrial Marketing Management.* Vol. 47. pp. 53-64.

Ulaga W., Eggert A. (2002). Customer perceived value: A substitute for satisfaction in business markets? *Journal of Business & Industrial Marketing*. Vol. 17(2/3). pp. 107-118.

Ulaga W., Eggert A. (2005). Relationship value in business markets: The construct and its dimensions. *Journal of Business-to-Business Marketing*. Vol. 12(1). pp. 73-99.

Van der Haar J., Kemp R., Omta O. (2001). Creating Value that Cannot Be Copied. *Industrial Marketing Management*. Vol. 30(8). pp. 627-636.

Wagner S., Eggert A. (2016). Co-management of purchasing and marketing: Why and how? *Industrial Marketing Management.* Vol. 52(1). pp. 27-36.

Wagner S., Lukassen P., Mahlendorf M. (2010). Misused and missed use – Grounded Theory and Objective Hermeneutics as methods for research in industrial marketing. *Industrial Marketing Management.* Vol. 39(1), pp. 5-15.

Walter A., Ritter T., Gemünden H. (2001). Value Creation in Buyer-Seller Relationships: Theoretical Considerations and Empirical Results from a Supplier's Perspective. *Industrial Marketing Management*. Vol. 30(4). pp. 365-377.

Yin R. (2014). Case Study Research Design and Methods. Thousand Oaks, CA: Sage. 282 pages.

Yin R. (2002) Case Study Research. Thousand Oaks. CA: Sage

Yin, R. (2009). Case Study Research. Los Angeles: Sage Publications.