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MASTER'S THESIS

ANALYSIS OF BUSINESS CUSTOMERS' GOAL-VALUES HIERARCHIES: CASE ADOPTION AND USE OF THE NEW DIGITAL SOLUTION

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ABSTRACT

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The aim of this master's thesis is to study what motivates business customers to use the new mobile payment solution. More specifically, purpose it to understand the decision-making process of business customers and identify the goals and values that motivate them to use the solution. Thus, the value-oriented perspective is taken to study usage of technology. The theoretical part of the thesis builds comprehensive understanding of the issue by discussing concepts of values and goals and their effect on behavior as well as presenting the means-end theory. As customer decision making can be understood as means-end chain, motivation of business customers to use new solution is explored by using laddering technique. Thus, attributes, consequences and goals are elicited that explain the motivation for the usage.

This study was able to identify several ladders from the business customers and increase the knowledge of the application of the means-end theory in business to business and new technology adoption context. This unique study also advances value-oriented research in that it disclosed goals that should be taken into consideration when exploring business customers intention to use new technology, especially in mobile payment technology. The hierarchical maps constructed from the ladders revealed that the simple and efficient processes as well as security are the most essential goals to be fulfilled. The results indicate that fulfillment of the most important goals identified from business customers are critical in order to enhance the use of the new mobile payment solution.

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Tämän Pro gradu -tutkielman tavoitteena on selvittää mikä motivoi yritysasiakkaita käyttämään uutta mobiilimaksuratkaisua. Tarkoituksena on ymmärtää yritysasiakkaiden päätöksentekoprosessia ja tunnistaa tavoitteita ja arvoja, jotka motivoivat yritysasiakkaita käyttämään mobiilimaksuratkaisua. Teknologian käyttöönottoa tutkitaan arvokeskeisestä näkökulmasta. Tutkielman teoriaosuus pyrkii rakentamaan kokonaisvaltaisen ymmärryksen aiheeseen keskustelemalla arvoista ja tavoitteista ja niiden vaikutuksesta käyttäytymiseen sekä esittelemään means-end -teorian, jolla voidaan mallintaa arvo- ja mielleyhtymäketjuja. Asiakkaiden päätöksentekoa voidaan ymmärtää means-end -teorian kautta ja näin ollen yritysasiakkaiden motivaatiota käyttää mobiilimaksuratkaisua tutkitaan ladderointi-menetelmää hyödyntämällä. Ladderointi-menetelmän avulla voidaan tunnistaa ominaisuudet, niiden seuraukset ja syvemmät tavoitteet, jotka motivoivat yritysasiakkaita käyttämään mobiilimaksua.

Tutkielmassa pystyttiin tunnistamaan useita arvo- ja mielleyhtymäketjuja yritysasiakkailta. Tutkielma vahvisti means-end -teorian käyttöä yritysasiakas- ja teknologiakontekstissa. Tutkielma on myös edistänyt arvokeskeistä tutkimusta tunnistamalla tavoitteita, jotka tulisi ottaa huomioon selvitettäessä yritysasiakkaiden motivaatiota käyttää uuttaa teknologiaa, etenkin mobiilimaksuteknologiaa. Arvo- ja mielleyhtymäketjuista koostettu hierarkkinen kartta paljasti, että yksinkertaisemmat ja tehokkaammat prosessit sekä turvallisuus ovat merkittävimpiä tavoitteita, jotka mobiilimaksujärjestelmän pitäisi täyttää. Tulokset osoittavat, että näiden tunnistettujen tavoitteiden täyttäminen on kriittistä, jotta uuden mobiilimaksuratkaisun käyttö voidaan varmistaa yritysasiakkaiden keskuudessa.

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1 INTRODUCTION

The effect of values and goals on behavior have been widely studied (Bardi & Schwartz 2003). It has been understood that underlying values and goals influence whether product or service will be adopted and used (Schwartz 1992). Thus, by gaining knowledge about underlying motivations, better products and services can be created to meet the needs of customers (Gutman 1982).

Christensen (2010) states that it is essential for companies to understand the qualities and attributes the customers value in order to create competitive advantage. However, there is evidence in the literature that managers often evaluate wrongly what their customers value (Parasuraman et al. 1985, Sharma & Lambert 1994). Moreover, organizations have a habit to learn most about the customers only at the attribute level which may result a partial and shallow understanding of customer and missing of the knowledge. This gap in understanding may result mistakes in organization's efforts. Therefore, the needs of the customers should be learned and understood more deeply. (Woodruff 1997)

According to Bagozzi and Lee (1999) and Bagozzi and Dholakia (1999) in-depth understanding of the customer is emphasized especially in the area of new product adoption. Marketers often try to disclose customers' responses to new products by presenting prototypes or concept statements and analyzing their reactions and evaluations to the product. However, these approaches may be inadequate, since in the case of new products, customers may face challenges to assess the product and consider the fulfilment of the needs, because no previous experience with the product exists. Thus, consumers' responses may be only partially formed psychological responses. Therefore, in the new product adoption research more appropriate approach is to try to understand cognitive structures of underlying values and goals more comprehensively, and thereby create better understanding how to meet the needs of the customers.

When adopting or using the product it is not product or service attributes that determine the intention to use, rather it is the consequences that the product attributes cause, that customers evaluate. Whether customer perceives the consequences as positive or negative is dependent on person's values and goals. (Woodruff 1997) Customer decision making can be understood as means-end chain and means-end theory offers a model for systematically conceptualize the hierarchical representation of decision making (Gengler & Reynolds 1995, Grunert et al. 1995). When conceiving the customers perception of product as hierarchy much richer picture of the customers mind can be achieved. The approach allows to understand cognitive structures of the customer and explore what consequences customers desire, and in the other hand what they want to avoid, and to what goals the consequences lead. (Woodruff 1997)

Means-end approach has been widely accepted in marketing research (Peter & Olson 1994). Especially in consumer research, the approach has been used extensively (Gutman 1982, Gutman 1990, Gengler et al. 1999, Walker & Olson, 1991). Examining values and goals is beneficial especially for marketers in order to create products and marketing messages to meet consumers' needs better. The main areas the means-end approach have been applied, is market analysis, segmentation, product development and promotional strategy. (Gutman 1982, Reynolds & Gutman 1988, Reynolds & Rochon 1991, Walker & Olson 1991) Even though being more common in consumer research, the means-end approach has been also used in business to business marketing studies. Companies serving business to business customers will greatly benefit from the understanding of how their offering increases the value for buying organization and also partly for the end user (Grünbaum 2017). For example, Skytte and Bove (2004), Jamshidi and Sepehri (2007) and Henneberg et al. (2015) have applied the means-end approach in business to business context.

This study is conducted for Finnish oil refining company, Neste. The company has three distinct business areas, Oil Refining, Renewable Products and Marketing & Services. The context of this study is in the new mobile payment solution that Neste's Marketing & Service business area is developing for the business

customers. The Marketing & Services business area markets and sells fuel and oil products through wide station network. In addition to private consumers, Marketing & Services serves business customers such as retailers, fleet customers, industry and agriculture. In order to create better digital solution for these business customers and enhance the adoption of the solution, this study adopts the means-end approach and aims to explore the goals and values of Neste's business customers that motivate them to use this new solution.

Only few studies have been conducted where means-end approach have been used in business to business context. Therefore, the present study contributes to increase the knowledge how means-end approach can be applied in business to business context, and more specifically how it can be applied in the case of new technology adoption in organization. Also, the study contributes to address how to apply the knowledge from customers cognitive structures in new product development. Contribution is done also in identifying values and goals of business customers, and especially how they motivate the usage of the new digital solution. Consequently, the study also contributes to explore is it relevant to study values and goals in the business to business context, as it has been more common in consumer research.

1.1 Research questions

The aim of this research is to understand the motivation for business customers to adopt and use new digital solution. As the digital solution is still under development, it is important to gain more in-depth understanding what motivates customer to use the solution and justify the development of the solution. In addition, when understanding the customer more deeply, better solution for the customer can be created. Hence, the research question is stated as follows:

What motivates business customer to use new digital solution?

There is evidence that values and goals strongly regulate the behavior of individuals (Rokeach 1968, Schwartz 1992, 1994, Sagie & Elizur 1996, Sagie et al. 2005). Thus, by understanding values and goals also behavioral intentions can be

understood (Maio & Olson 1995). Therefore, it is essential to study the values that motivate customer to use the digital solution and what are the goals the solution can help customer to reach. By gaining this knowledge deeper understanding from the customer can be created. Consequently, it is important to present the first sub-question of the research:

What is the role of goals and values?

In order to create better digital solution that meets the need of customers, it is essential to understand what product attributes benefit the customer most and why they are important. Customer decision-making can be understood as means-end chain. By systematically exploring customers' perception of the product as hierarchy, it is possible to understand why certain product attributes are desired and why certain consequences are seen important. (Woodruff 1997) Hence, the second sub-question of the study is stated as follow:

How identified goals and values are linked to product attributes?

1.2 Literature review

As the aim of the study is to understand underlying goals and values that engage business customers to use new digital solution, the framework of the study comprises concepts and theories from values and goals literature generally and in organizational context as well as from means-end literature. In the following, origins of these concepts and theories are presented.

Payne and Holt (1999) mention that the notion of value has been recognized in marketing since the industrial beginnings. Concern for understanding how to identify, create and deliver customer value has been of major interest for researchers as well as marketers and consumers for years. It is seen as source of competitive advantage. (Patterson and Spreng 1977, Woodruff 1997) However, the concept of value is not unambiguous and there occurs different perspectives of value (Payne & Holt 1999).

First of all, it is important to note the small but significant difference between terms value (singular) and values (plural) (Payne & Holt 1999).) Payne and Holt (1999) mention that the term ‘value’ is comprehended as the result of a trade-off for instance between benefits and sacrifices or as an interaction for instance between a customer and the product or service, whereas the term ‘values’ refers to “deeply held and enduring beliefs” defined for example by Rokeach (1973, 5). Payne and Holt (1999) note that the current research on value, has mainly constructed on the trade-off concept. However, this study concentrates on ‘values’ rather than to ‘value’.

In the literature values have been equated to beliefs (Rokeach 1968, 1973), needs (Super 1973), goals (Schwartz & Bilsky 1978) and criteria for choosing goals (Locke 1976) as well as to attitudes (Fishbein & Ajzen 1975). Some academics have been concerned to distinguish values from other concepts (e.g. Kilmann 1981, Payne 1980, Rokeach 1973, Scott 1965). The prevailing discussion is whether values are solely preferences (Rokeach 1968, 1973) or are they preferences that are morally desirable (Beyer 1981, Scott 1965). Most theorists suggest that culture, society and personality affect to development of individual’s values (Dose 1997). Values can be divided into two categories, personal and social. Personal referring to individual’s own values, while social referring to institutional, cultural or organizational values. (Mueller & Wornhoff 1990, De Souza Leão & Benício de Mello 2007)

Values are very closely related to goals. (Schwartz & Bilsky 1978, Locke 1976). Customer behavior is seen as goal-oriented, both in the case of individuals and buyers in organizations (Pieters et al. 1995, Bagozzi & Dholakia, 1999). Research in psychology, Frese and Sabini (1985) and Pervin (1989), has done significant foundational work concerning goals, and since then goals have been tried to incorporate into model of consumer behavior. Earlier goals were often studied in isolation. However, Pieters et al. (1995) drew upon theoretical perspectives from psychology such as personal construct, human personality, human values and cognitive structure, and suggested that it is more useful to study goal-directed consumer behavior as a hierarchical model of action referring it as a goal structure.

Gutman (1982) was one of the first to draw interest in consumer value in marketing. He was able to link the ‘values’ and ‘value’ together in a sense, by understanding that product attributes can be associated consumers’ values in a means-end chain and this way the decision making can be clarified (Payne & Holt 1999). Means are product attributes that are connected to certain desired consequences which finally fulfill the values, referred as ends. This is the core of Gutman’s means-end theory (1982). The tool for revealing means-end chains of consumer is in-depth interviewing technique termed laddering by Reynolds and Gutman (1988).

The roots of the means-end chain can be found from the Kelly’s (1955) work who found that humans categorize the incoming stimuli to hierarchically organized categories and this way make sense of their surroundings. Kelly’s student Hinkle (1965) developed the laddering technique, with which to expose the higher levels of abstraction by analyzing the effect on individual’s hierarchical system if one construct is changed. The means-end model was developed as an adaption of Hinkle’s laddering method (Bourne & Jenkins 2005, Veludo-de-Oliveira et al. 2006). Before the introduction of Gutman’s (1982) means-end theory, multiple attempts have been done to create theoretical and conceptual structure for defining how values control the behavior of consumers (e.g. Young & Feigin 1975, Vinson et al. 1977). These attempts can be comprised as early versions of means-end chain model. Also, the research conducted on values by Rokeach (1968, 1973) represents foundation for means-end theory as he proved that values regulate the behavior of individuals. Also, several other researchers have suggested that values have key role in explaining consumers’ preferences and choice behavior (Gengler et al. 1999, Homer & Kahle 1988, Wickert 1940). Furthermore, Rokeach (1973) findings indicate that values give consequences negative or positive meanings, which is also assumed in means-end theory.

Furthermore, the means-end theory parallels the expectancy-value theory by Rosenberg (1956) which represents the origin of attitude research. The expectancy-value theory also reflects the findings of Rokeach (1973) about the values. The theory postulates that values give consequences an importance, and consequences

that are linked to important values should be more significant to an individual than those linked to less important values. In the core of the expectancy-value theory is that every consumer action leads to consequences and certain consequences are learned to associate with certain actions. This assumption is also in the core of the means-end theory (Gutman 1982).

According to Grunert and Grunert (1995) means-end chain can be utilized to reveal the consumers' motives or give an explanation how relevant information is stored and constructed in individual's memory and used to direct the behavior. The first is referred as motivational view, whereas the latter is referred as cognitive structure view. The cognitive structure view is often used in studies exploring consumers' decision-making process and aim is to predict the behavior. Whereas, motivational view is adopted in studies which aim to provide qualitative insights about the motives underlying behaviors. The motivational view is particularly suitable when examining organizational behaviors (Guenzi & Panzeri 2015).

Pieters et al. (1995) state that generally in consumer behavior research, cognitive aspects have been more widely explored, but more and more researchers have turned their attention to motivational issues and consumer goals (e.g. Celsi & Olson 1988, Bagozzi & Warshaw, 1990, Huffman & Houston 1993). However, the means-end chain literature does not provide clear picture which of the two view is endorsed. It should be mentioned that Gutman (1982), the developer of the means-end theory, adopts a cognitive structure perspective, noting that hierarchical map reflects cognitive structures. In addition, Jolly et al. (1988), Olson (1989), Peter and Olson (1990) as well as Reynolds and Gutman (1988) adopt a cognitive structure view. In contrast, for instance Bagozzi and Dabholkar (1994), Pieters et al. (1995) and Capozza et al. (2003) adopt motivational view in their studies where the aim is to define customers' goal structures.

Means-end theory has received wide acceptance in marketing research (Peter & Olson 1994). Especially, the theory has been used widely in consumer research (Gutman 1982, Gutman 1990, Gengler et al. 1999, Walker & Olson 1991). In addition, a few business to business studies have adopted means-end approach

(e.g. Henneberg et al. 2015, Jamshidi and Sepehri 2007, Skytte & Bove 2004) According to Grünbaum (2017) companies serving business to business customers greatly benefit from the understanding on how their offering increases the value for buying organization and also partly for the end user.

As it has been found that values and goals regulate the behavior of consumer, several researchers have conducted studies where certain consumption behavior is tried to understand through values. For example, Shim and Eastlick (1998), Lotz et al. (2003), Jägel et al. (2012), Pinto et al. (2011) and Ladhari et al. (2011) have studied consumption behavior through values. Lately, also innovation and technology adoption behavior research has adopted value-oriented perspective. Steenkamp et al. (1999) state that general orientation to new product and technology acceptance is influenced by person's values. As a result, Burgess (1992) as well as Smith and Schwartz (1997) note that given the importance that values have in individual's cognitive structures, they represent strong theoretical base to understand and explain behaviors concerning for instance acceptance of new products and technologies.

Jung (2014) states that traditional innovation and technology adoption models such as technology acceptance model (TAM) by Davis (1989), theory of reasoned action (TRA) by Ajzen and Fishbein (1980, 1975), theory of planned behavior (TPB) by Ajzen (1991), theory of diffusion of innovations by Rogers' (1983, 1995) or unified theory of acceptance and use of technology (UTAUT) by Venkatesh et al. (2003) have not put a lot of interest in the diverse users' values and earlier models lack of comprehensive understanding of technology adoption. Traditional models simply assume that users are passive subjects that react to technology as given, whereas the newer technology such as smartphones make users empowered.

To bring new understanding to technology adoption research Kim et al. (2007) have introduced value-based adoption model (VAM), which aims to explain especially the adoption of mobile data services from value maximization perspective. However, Jung (2014) mentions even though VAM adopts value-driven approach, it includes only concept of perceived value and lacks to explore values and relations among

them. As a result, Jung (2014) have contributed to value-oriented research by using the means-end chain approach to explain the adoption of technology. The researcher states that this value-oriented approach offers an alternative way to explain technology acceptance and allows to explore relationship among values. However, still more understanding of values and users' behavior is needed.

Consequently, this study aims to adopt value-oriented view in order to study intention and motivation to adopt a new technology. As producing value for the customers is critical in achieving competitive advantage, it is essential to be aware of what customers appreciate and why. Whether it is consumer or organizational buyer in the question, buying behavior is seen as goal-oriented. Means-end theory offers an effective approach to understand customers' values and motives. When understanding the hierarchical structure of customers' values and goals, behavior can be explained, and it can be comprehended what product or service attributes bring value and why. As values and goals have such an importance in humans' cognitive structures, they also can explain the acceptance of technology. Thus, by adopting value-oriented perspective into technology adoption research, it can be identified what customers truly want and need without making any presumptions.

1.3 Theoretical framework

The theoretical framework of the study illustrates the perspective of the study and relationships between key concepts (Figure 1.). The behavior of customer can be understood as means-end chain. Hence, the understanding of the business customer's motivation to use new digital solution is built by understanding how certain product attributes are connected to consequences and finally to goals and values, which determine the negative or positive valences for the experienced consequences. As it is suggested in the literature, if product attributes are linked into positive consequences it can be assumed that customer has intention to adopt and use the product and finally act according to this intention, which in this case is the usage of new digital solution (Grunert & Bech-Larsen 2005). However, when exploring the values and goals of business customers it should be also taken in consideration that in organizational context goals and values are influenced by

multiple people, situational factors and organizational objectives which impact to the motivation to adopt and use new digital solution. (Webster & Wind 1972, Johnston & Lewin 1996)

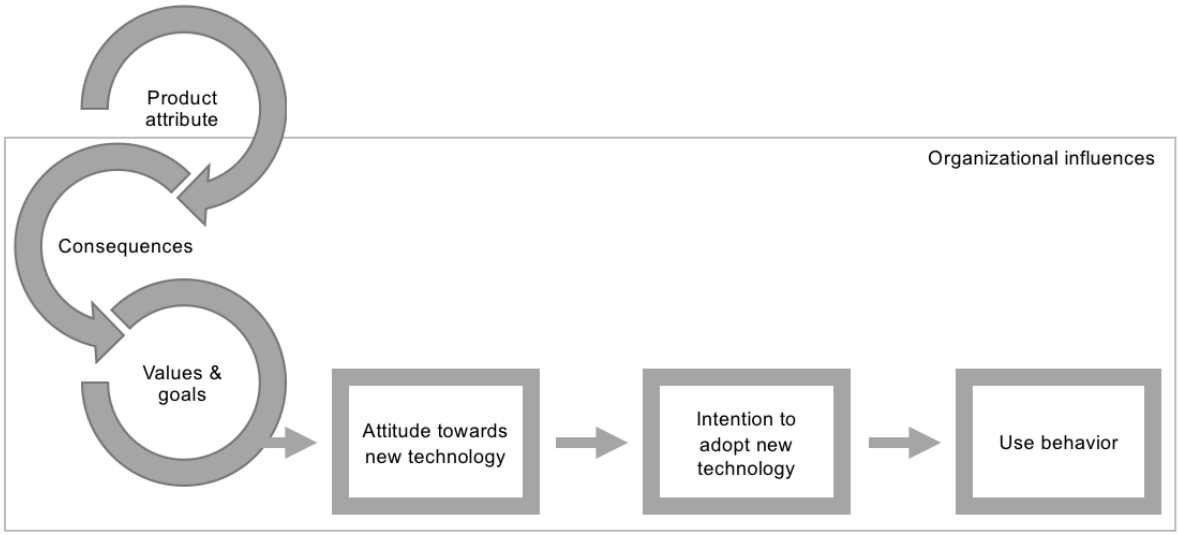

Figure 1. Theoretical framework of the study

1.4 Key concepts and definitions

Attributes

"Products are selected on the basis of attributes they possess, which imply their ability to produce the desired consequences and avoid the undesired consequences." (Gutman 1982, 62)

Consequences

"Consequences may be defined as any result (physiological or psychological) accruing directly or indirectly to the consumer (sooner or later) from his/her behavior. Consequences can be desirable or undesirable." (Gutman 1982, 61)

Values

"*A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence."* (Rokeach 1973, 5)

Goals

"A mental image or other end point representation associated with affect toward which action may be directed." (Pervin 1989, 474)

Means-end chain

"Means are objects (products) or activities in which people engage (running, reading). Ends are valued states of being such as happiness, security, accomplishment. A means-end chain is a model that seeks to explain how a product or service selection facilitates the achievement of desired end states. Such a model consists of elements that represent the major consumer processes that link values to behavior." (Gutman 1982, 60)

Attitude

"Attitudes develop reasonably from the beliefs people hold about the object of the attitude. Generally speaking we form beliefs about an object by associating it with certain attributes, i.e., with other objects, characteristics or events." (Ajzen 1991, 191)

Intention

"Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance." (Ajzen 1991, 181)

Adoption of innovation

"The process through which an individual or other decision-making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision." Rogers (1995, 21)

1.5 Research methodology

This exploratory study employs qualitative research method and chosen research strategy is single case study method, which allows holistic overview of the research problem. The data is collected through in-depth interviews, termed as laddering. Five business customers of Neste are interviewed and in-depth understanding of their underlying goals and values concerning the use of new digital solution is created.

1.6 Delimitations

The research setting allows several different approaches for addressing the issue. However, certain delimitations have been done in order to address the right and relevant issues. The main purpose of the study is to understand what motivates business customer to use the new digital solution. After wide review of the literature it was clear that several approaches exist that allow to understand intentions and customer decision-making.

As already covered in preliminary literature review several models and theories exist that explain technology adoption, such as TAM, TRA, TPB and theory of diffusion of innovations. However, none of these models were adopted in this research, since it was experienced that they make too many assumptions in advance and they lack comprehensive understanding that will not serve the purpose of the study. As mentioned by Jung (2014) traditional technology acceptance models lean to predetermined affects that try to explain intention to use, and they explore the impact of some perceptual factors in an outcome variable. Consequently, this is not intention in the present study. In addition, traditional models rather concentrate to study what the solution can offer than to recognize what customer truly want and need (Xiao et al. 2017).

Overall, technology use and adoption are not discussed in the study very deeply since the main purpose is to understand the behavior and decision-making of customer, rather than concentrate to understand for example process of technology

adoption. Furthermore, user experience literature was considered to be included in the study, but finally it was left out. Even though when studying what motivates customer to use new digital solution, the final goal is to create better user experience and enhance the use of solution. However, detailed discussion of the user experience literature does not serve the purpose of the study, and it is left out in order to keep study more focused.

As it was realized that values and goals act as determinant of customer behavior several models concerning values were reviewed. Several models that concentrate to explain behavior through values were considered to be applied in the study. However, it was realized that for example adopting macro perspective and utilizing predetermined value inventories, such as VALS (SRI 1980), LOV (Kahle 1983) or Schwartz's (1992) set of ten values would not serve the purpose of the study. As Reynolds and Gutman (1988) state, they give only part of the answer and do not comprehensively explain how concrete attributes of the product fit into customer's life. However, predetermined value inventories such as Schwartz's (1992) set of ten values or England's (1967) personal values questionnaire are utilized just in order to identify different existing values.

Value-attitude-behavior model and expectancy-value model were also identified from the literature. Even though attitude-value-behavior model allows to understand cognitive hierarchy and it is widely accepted in literature and applied in many different researchers, it was mainly utilized in research on environmental issues (Milfont et al. 2010). Thus, it was not included in the study, with the exception of increasing the knowledge of how values affect on behavior, Furthermore, expectancy-value model was considered but it was realized that means-end theory is more advanced model.

Finally, the means-end model was found to be most appropriate approach to address the research problem and gain in-depth understanding of the customer. No other model allows to explore cognitive structures and motivations of the customer that well. It provides model for understanding customers' perception of the product

as hierarchy, explain the process of decision-making and the reasons behind the behavior as well as relative importance of values.

1.7 Structure of the study

The structure of this study comprises seven chapters. After the introduction, study proceeds by discussing concept of values and goals, their characteristics and their effect on behavior in chapter 2 and 3. This is followed by chapter 4 where means-end approach is presented, and its application is discussed. After presenting theoretical background, methodology of the study is discussed in the chapter 5 including the research context and approach, data collection and analysis methods, as well as reliability and validity of the study. Chapter 6 first describes the data collection process, and then proceeds to analysis and the results of the study by first discussing attributes, consequences and goals elicited from the research data and then continues to build hierarchical maps, where the connections of the identified attributes, consequences and goals are analyzed, and relative importance of goals is discussed. Finally, chapter 7 presents the conclusions of the study and discusses the key findings, theoretical contributions and practical implications as well as limitations of the study and suggestions for future research.

2 VALUES

In order to identify and understand values and goals that motivate business customers to use new digital solution, the concept of values and goals need to be defined and understood as well as knowledge needs to be gained how values and goals affect to behavior. This chapter discusses values, while the next chapter concentrates on goals.

2.1 Concept of values

The concept of values has been of interest in many disciplines including anthropology concentrating in life styles and cultural patterns, sociology with interest in ideologies and customs and in psychology examining values from the perspective of attitudes and personal motives (Kilmann 1981, Schwartz 2006). Furthermore, Payne and Holt (1999) note that in marketing and consumer research values have been of interest several years, where the psychological definition of value has been followed. The interest in consumer research on values originates from the fact that values are linked to underlying motives and influence individual's action, attitudes and behavior (Homer & Kahle 1988, Rokeach, 1973, Schwartz & Bilsky 1990).

One of the leading value theorists, Schwartz (1992, 2006) has developed a conceptualization of values that comprises of six central features that are widely accepted by theorists (e.g. Feather 1995, Inglehart 1997, Kohn 1969, Morris, 1956, Rokeach 1973, Schwartz & Bilsky 1978). Firstly, values are beliefs that are inseparably connected to affect. Secondly, values relate to desirable goals motivating action. Thirdly, values cut across specific situations and actions. Fourthly, values serve as criteria or standards, and hence guide the choice and assessment of actions, people, event or policies. Fifthly, values are organized hierarchically, and finally, the relative importance of several values direct actions. Rokeach (1973, 5), one of the honored value theorists as well, has defined values as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence".

Also, slightly dissenting opinions exist concerning the collective term which is used to describe values. While Rokeach (1973) and Schwartz (1994) comprehend values as “enduring beliefs”, for example Guth and Tagiuri (1965) view values as a “conception” and Braithwaite and Blamey (1988) see values are “principles.” (Cheng & Fleischmann 2010) However, overall it is agreed among researchers that values refer to “enduring beliefs” or “motivational goals” relating to “desired modes of conduct or end-states of existence” (Rokeach 1973) that serve as principles guiding the selection of actions, attitudes and behavior (Schwartz & Bilsky 1990). (Lee & Lyu 2016)

In order to understand the concept of values comprehensively, it is also essential to note the difference between several “neighboring” concepts which values have been equated. (Kilmann 1981, Payne 1980, Rokeach 1973, Scott 1965). Kilmann (1981) has identified set of concepts where distinction is important to draw. The first set of concepts comprises concepts of desires, wants, motives, needs and wishes. While these concepts indicate individual’s state of tension or deficiency, values direct what individual needs, desires or wants, which is controlled by what individual perceives as good or bad, right or wrong, or desirable or undesirable.

The second set of concepts comprises interests, goals, preferences and valences (Smith 1963), which refer to individual’s focus of attention or special meaning in physical environment. Instead, values guide to what goal, preference, interest individual wants and is motivated to focus on (Kilmann 1981, Schwartz 2006). The third set of concepts includes norms and normative statement, which guide what individual should or should not do in certain situation. Also, values have similar task, but they are not dependent from any context. Consequently, values are central and enduring and standards or criteria what is considered as desirable and they are basis for accepting or rejecting norms (Rokeach 1968, 1973, Schwartz & Bilsky 1978, England 1967). In addition, the hierarchical structure of values distinguishes values from norms (Schwartz 2006). The fourth set of concepts comprise traits, dispositions and tendencies. Similarly as values, these are relatively stable and

guide the behavior (Roccas et al. 2002). However, values regulate if certain trait or disposition is considered good or bad or right or wrong and so on. (Kilmann 1981)

The final set of concepts involves beliefs, attitudes, sentiments and opinions, which refer to individual's feelings and conviction about some phenomena. However, values are only expressed when the statement is linked to evaluative dimensions such as oughts, shoulds or goods or bads and so on. In addition, Homer and Kahle (1988) and Schwartz (1992) note that values are the most basic adaptation characteristics and base for generation of attitudes and behavior. In summary, it is the evaluative dimension that characterizes values and distinguishes it from other related concepts. Thus, values guide needs and wants individuals should have, what preferences, interests and goals person sees desirable, what traits or dispositions individual ought to have and what beliefs and attitudes person expresses. (Kilmann 1981)

2.2 Classification of values

Several different categorizations for values exist in order to identify and analyze values. One of the most accepted among the academics are the Rokeach (1973) Value Survey and Schwartz's (1992) Value Survey. (Cheng & Fleischmann 2010) Rokeach's Value Survey identifies 36 different values, which are further divided into terminal and instrumental values. Terminal values reflect preferred end-states (goals), while instrumental values reflect means as ways of behaving to reach the goals. The classification is widely accepted among academics and used as a tool in value research (Gibbins & Walker 1993, Tuulik et al. 2016). However, some concerns about the convenience of Rokeach's Value Survey have been identified. For instance, Kitwood and Smithers (1975) have expressed the concern if values included in the survey are critical ones and universally understandable. Furthermore, Schwartz (1992) has criticized the distinction of values into terminal and instrumental (Elizur & Sagie 1999).

Schwartz (1992) developed value classification of his own by building on and extending Rokeach's (1973) work. Schwartz's Values Survey identifies set of ten

motivationally distinct basic value orientations which are recognized across cultures; power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. All together, these ten motivation value types comprise 56 values. This classification is the core of Schwartz's (1992) theory of basic human values. Values are constructed as cognitive representations from the criteria of three universal requirements of biological needs, coordinated social interaction and societal demand for group welfare and survival (Schwartz 1994). Several researchers have found that these ten value domains are relatively stable across culture, time and situations and the categorization is extensively used in studies (Roccas et al. 2002, Schwartz 1992, Schwartz & Sagle 2000, Schwartz et al. 2001, Vecchione et al. 2011).

2.3 Effect of values on behavior

To some extent, dissenting opinions exist regarding the effect of values on behavior. Some researchers believe that values definitely guide the behavior. For example, Allport (1961) and Rokeach (1973) include this belief in their definition of values. Then again other suppose that values rarely guide behavior and majority of people do not act according to values (e.g. Kristiansen & Hotte, McClellad 1985). Bardi and Schwartz (2003) note that various studies have found empirical evidence that values control behavior. However, most of these studies have explored only single behaviors (e.g. Rokeach 1973, Schwartz, 1996) or sets of behavior (e.g. Bond & Chi 1997, Schwartz & Huismans 1995).

According to Bardi and Schwartz (2003) most basic way expressing one's important values is to act in ways that they become realized or promote the achievement of these values. For example, if individual holds security value, one behaves in a way that personal safety is promoted. In most behaviors more than one value is expressed, while some behaviors may express primarily only one value. Acting in accordance with values may also be unconscious. Thus, people do not actively think that they are acting according to values, but values are operating outside the awareness. However, retrieval of values from memory is always available and people are able to explain their values.

According to Rokeach (1973) one reason why people behave according to their values is that people have a need for consistency between beliefs (values) and behavior. Bardi and Schwartz (2003) mention that other reason for acting according to values is that value-consistent behavior is perceived rewarding as it helps people achieve their desires. For example, studies by Feather (1995) and Sagiv and Schwartz (1995) have found evidence that values guide behavioral intentions in hypothetical situations and prove that people want to act in accordance to their values. More importantly, also research conducted in real-life situations have found that values at least relate to choice behavior, for example selecting course in university (Feather 1988) and voting for political parties (Schwartz 1996).

However, majority of behavior is more spontaneous, and in these situations, people rarely consider value priorities. Consequently, McClelland (1985) has argued that presumably values impact behavior only when actions are conscious decisions. Nevertheless, Bardi and Schwartz (2003) mention that values can impact behavior also in unconscious behavior through mechanism such as habits. For example, Sagiv and Schwartz (2004) found evidence that values are linked to common, ongoing behaviors. In addition, conducting three wide studies concerning common behaviors and values Bardi and Schwartz (2003) found that there is correlation between most values and actions corresponding to them. Especially values such as hedonism, self-direction, universalism, and power values have link to common behaviors, whereas values such as security, benevolence, conformity and achievement have only weak relation to common behaviors. (Bardi & Schwartz 2003)

Several scholars have discovered that values direct behavior through variable such as attitudes (Schwartz & Bilsky, 1990, Homer & Kahle 1988, Shim & Eastlick 1998). Homer and Kahle (1988) have developed value-attitude-behavior model, which is understood as cognitive hierarchy. The model indeed postulates that values affect behavior directly and indirectly through attitudes. Value-attitude-behavior hierarchy has been asserted in literature widely (Shim et al. 1999, Vaske & Donnelly 1999). In addition, for example Carpara and Cervone (2003) have explored the internal

systems such as values, controlling affective, cognitive and motivational processes, which again direct person to attain enduring goals by choosing specific attitude. In turn, Jaywardhena (2004) have tested value-attitude-behavior model in e-shopping context and found that certain values need to be related to specific positive attitudes in order to result e-shopping behavior.

There is evidence that values also act as determinant of consumer attitudes and consumption behavior (Homer & Kahle 1988). Consumer values and their effect on behavior have been studied widely. For example, research by Williams (1979, 20) demonstrated that consumer values and beliefs control the selection of behavior. Shim and Eastlick (1998) explored the relationship between personal values and shopping attitude and behavior, Lotz et al. (2003) studied relationship to gift-giving behavior, Jägel et al. (2012) and Pinto et al. (2011) environmentally responsible consumption and Ladhari et al. (2011) to perceived service quality. Furthermore, Homer and Kahle (1988) as well as Erdem et al. (1999) have summarized several researches that have found evidence of the linkage between values, attitude and behavior. They mention that values have found to relate to purchase decision for example in car purchase and mass media subscription. Thus, it can be stated that different values result in different attitudinal and behavioral outcomes (Kim et al. 2002).

The effect of attitudes has been also noted in organizational and individual innovation adoption research. Attitude towards the innovation is recurrent theme in several models explaining innovation acceptance. (Frambach & Schillewaert 2002) For example, Rogers (1995, 21) defines adoption as “the process through which an individual or other decision-making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision”. Understanding what influences the adoption decision allows to create more successful products and services (Frambach and Schillewaert 2002). In the organizational level perceived innovation characteristics are central interpretative factor, which refer to cognitive indices or beliefs that reflect an attitude towards the innovation. Conceptual and empirical evidence exists that attitudinal components

mediate the impact of external variables, like motivation, on behavioral intentions. (Le Bon & Merunka 1998) Thus, it can be concluded that in innovation adoption values and attitudes need to be considered.

Moreover, Kim et al. (2002) mention that values may also impact the prioritization of needs that customer wants to achieve through purchase of certain product. Needs concerning the consumption have been seen as part of attitudinal variables, measured as opinions, interests and activities and needs, may be antecedent of attitudes and purchase behavior, and thus it provides a hierarchical linkage of consumer values-needs-behaviors.

In addition, origin of attitude research, the expectancy-value model by Rosenberg (1956) has been base for understanding influence of values on behavior in marketing. In marketing expectancy-value model is understood as product attributes and it has been utilized in predicting product and brand choice. However, it does not explain why customer evaluate product attributes differently, and thus why certain brands or products are desired over another. (Vinson et al. 1977) Expectancy-value model presents the roots for Gutman's (1982) means-end theory. Consequently, means-end theory offers more advanced tool for understanding how values affect consumer behavior and explains why certain attributes are desired. (Gutman 1982)

2.4 Values in organizational behavior: the concept of work values

In addition, to personal values also work values can be identified. Since the interest of the research is in organizational context, other than personal values need to be considered. In organizational context set of work values occur that control the behavior of individual. Thus, it is essential to study work values in more detail.

The research and theory on work values precede from the basis that work values are descend from the basic human values (Roe & Ester 1999). Ros et al. (1999) as well as Schwartz (1999) have found that work values are central to individual's basic values and they declare what person perceives as motivating and meaningful in life

as a whole. Thus, knowledge of the human values already gives strong base for understanding the concept of work values.

Yet, several researchers have aimed to define work values more specifically. Super (1970) has defined work values as a part of total values which refer to satisfaction, rewards and qualities that person demand or seek from one's work, Meglino and Ravlin (1998) have defined them as desirable modes of behavior, Sagie et al. (1996) as how much individual gives importance to particular outcome in a workplace, Wollack et al. (1971) as individual's general attitudes toward work, rather than feeling about certain job and Nord et al. (1990) as end states guiding person's preferences toward work which are gained through the act of working.

Work values are very closely equated to concept of goals. Several researchers have regarded work values synonymously to work goals. For instance, Zedeck (1997) refers to values as goals that individual aims to achieve through working, French and Kahn (1962) as behavior that is controlled by goals, and Locke (1976) as criteria for selecting goals. Moreover, Ros et al. (1999) state that work values can be understood as goals in work setting, and thus are more specific than basic human values.

It is generally believed that work values shape person's expectations of work, reaction to specific work situations and person's likely performance in specific work role (Vecchio 1980, Black 1994, Huff & Kelley 2004). In a large part of literature values are perceived as independent for each life domain. However, in more recent studies for instance by Sagie et al. (1996), Sagie et al. (2005) and Ros et al. (1999) have aimed to understand the link between values in work and in other life domains.

2.5 Classification of work values

Multiple ways to classify work values can be founded from literature such as intrinsic and extrinsic (e.g. Borg 1990, Crites 1961, Mottaz 1985, Pryor 1987, Rosenberg 1957), cognitive, instrumental and affective (O'Brien & Humprys 1982) and modality and system performance of work values (Sagie et al. 1996). Classification into

intrinsic and extrinsic have received the widest acceptance among academics (George & Jones, 1997). Intrinsic work values refer to psychological qualities of working such as challenging, interesting, and are dependent on the content of work, whereas extrinsic values are considered more tangible aspects of work such as benefits, job security and pay and they occur as consequence of work regardless what is the content of the work. (George & Jones 1997, Pryce 2014)

One classification worth of mentioning is also England's (1967) personal values questionnaire (PVQ) which is applicable in business context and particularly to explore the value systems of business managers. PVQ is developed by analyzing 200 concepts identified from organization behavior, individual behavior and group behavior literature. Finally, it organizes 66 different value concepts into five categories which distinguishes among organizational goals, individual values, and personal goals. However, not all the concepts can be comprehended as values. (Cheng & Fleischmann 2010)

First category of value items comprises goals of business organization which includes goals of high productivity, industry leadership, organizational stability, profit maximization, employee welfare, organizational efficiency, organizational growth and social welfare. Second category includes personal goals in organizational context; leisure, dignity, achievement, autonomy, money, individuality, job satisfaction, influence, security, power, creativity, success, and prestige. Third category refers to groups of people; employees, customers, my co-workers, craftsman, my boss, managers, owners, my subordinates, laborers, my company, blue collar workers, government, stockholders, technical employees, me, labor unions, and white-collar employees. Fourth one includes ideas associated with people and includes ambition, aggressiveness, loyalty, prejudice, ability, obedience, trust, compassion, skill, cooperation, tolerance, conformity, and honor. The fifth and final category refers to ideas about general topics; authority, caution, change, competition, compromise, conflict, conservatism, force, liberalism, property, rational, emotions, equality, religion, and risk. (England 1967, Cheng & Fleischmann 2010)

3 GOALS

Customer behavior is mainly seen as goal-oriented, whether it is the individual consumer or organizational buyer in question (Pieters et al. 1995, Bagozzi & Dholakia 1999). Especially in organizational context goal-oriented behavior is emphasized (Webster & Wind 1972). Thus, in the following, the concept of goals and the effect of goals on behavior are discussed.

3.1 Concept of goals

Several researchers have aimed to define goals. Pervin (1989, 474) refer to goals as "a mental image or other end point representation associated with affect toward which action may be directed". Winell (1987) has defined goals as desired pleasant consequences or end states or as avoided unpleasant consequences (negative goals), Locke and Latham (1990) as desired outcome of an action, and Ford (1992) as pleasant end states individual aims to obtain through the cognitive, affective and biochemical regulation of behavior (cited in Gutman 1997, Eccles & Wigfield 2002). As conclusion goal can be defined as the aim or end of an action (Locke & Latham 1990).

Pieters et al. (1995) state that goals have two motivational purposes. First, they guide the direction of behavior by indicating what individual aims to achieve, and in a broader sense how one is going to reach the certain goal and why one even pursues the selected course of action. Second, goals impact the intensity of behavior by controlling how much individual puts effort for pursuing a course of action which again is influenced by the attractiveness of the focal goal.

3.2 Hierarchical structure of goals

Goals can be understood as a hierarchical structure, meaning that in order to reach higher level goal, some lower level subgoals need to be attained first (Carver & Scheier 1981, Emmons 1989, Vallacher & Wegner 1985). Several attempts have

been done to define the different levels of goal hierarchy, for example by Carver and Scheier (1981) who divide the level into program, principle and system level where the abstractness of the goal increases. Vallacher and Wegner (1985) provide action identification theory which states that behavior occur in several levels of abstraction and some goal in the hierarchy likely determines the ongoing behavior.

Pieters et al. (1995) criticize that earlier models emphasize only lower level goals. Hence, they have utilized the previous models and psychological theories concerning the action identification and self-regulation of behavior as well as means-end chain approach and developed own model, which gains more complete understanding of goal directed behavior. Pieters et al. (1995) refer to the model as goal structure, and they state that goal directed behavior is hierarchically structured into three levels from concrete to more abstract goals. Goals at the lowest level, referred as subordinate goals, process operational and more concrete aspects of reaching the focal-level goals. Above the focal goals level are superordinate goals which specify the reasons or motives for attempting a course of action, and hence defining why behavior is pursued. As a conclusion, goal structure can be understood as means-end structure.

Pieters et al. (1995) state that means-end approach allows to examine full goal structures, which define hierarchical connections between goals at different levels of abstraction in order to truly understand the goal directed behavior. People generally operate on lower level goals, and thus means-end approach is needed in order to allow people to think about abstract goals (Garbarino & Johnson 2001). The goal structure model is widely accepted among academics and in several fields, including marketing (Pieters et al. 1995) and psychology (Bagozzi et al. 2003) as well as recently in information system research to understand consumer/user online behavior (Jung & Kang 2010, Matook 2013, Pai & Arnot 2013).

In addition, Gutman (1997) has discussed about Heckenhausen's and Kuhl's (1985) model of goal hierarchies, which is understood as means-end chain. The scholars distinct goals into three levels; action goals, goals relating to the outcomes of actions and goals relating to the consequences of those more immediate outcomes. At the

first level, action itself is of interest, while in the second level, direct outcome of actions are central. At the third level, end states are understood as indirect consequences that direct outcomes facilitate or cause. Gutman (1997) also mentions the concept of action unit (AU), which refers to sequence of actions taken to reach the goal. Action unit can be understood as similar to plan. Individual moves through goal hierarchy to reach the end goal of the action unit. The decision to act itself represents the proximal boundary of the action unit, whereas what individual is trying to achieve according to decision to act represents the distal boundary of action unit. Action unit reflects individual's thoughts about the outcomes or the most abstract descriptions how individual rationalizes the actions. Action unit can be the whole or only part of means-end chain. Goals beyond the action unit being part of a means-end chain can be viewed as underlying reason why certain goals are strived. (Gutman 1997)

3.3 Effect of goals on behavior

Several researchers agree that goals have essential role in motivating and directing customer behavior (Carver and Scheier 1981, Pieters et al. 1995, Gutman 1997). Bagozzi and Dholakia (1999) state that when making buying decision customer aims to select product or service which can produce desired outcomes that the buyer searches for. It can also be referred as specific type of goal. Consequently, goals appear as benefits customer is searching, and hence influence to consumer’s actions (Park & Smith 1989). Garbarino and Johnson (2001) mention that goals have strong influence in every stage of customer’s decision-making process, from formation of attitude and processing of information to usage of product.

Especially in situations in which person has motivation and capability to act according to one’s goals, the influence of goals is most predictable and dramatic. These conditions are met when only small number of goals occur that are not in conflict with each other, sufficient emotional involvement exists to trigger the use of goals and discretion exists in the frequency and the type of product usage. Even though these conditions are not realized, goals may still have influence. However,

the effects may not be as strong and identifying them is more difficult. (Garbarino & Johnson 2001)

Goals can have either direct or indirect effect on product usage. Indirect effect of goals forms through satisfaction (Garbarino & Johnson 2001). It is widely accepted in marketing literature that satisfaction results in product usage (Anderson et al. 1994). Direct effect of goals is expected to impact on usage behavior through process of feedback control (Carver & Scheier 1981). According to the feedback-control theory person compares the actual outcome to desired outcome and evaluates if behavior is moving into right direction. Individual aims to adjust the behavior so as to best achieve the desired goals. If person realizes behavior is taking person towards the goal, one is expected to pursue and enhance the behavior. In contrast, if individual realizes discrepancy between the desired outcome and the action, individual reduces the behavior. Thus, people engage in activities that move them toward the desired goals and modify their behavior accordingly. (Garbarino & Johnson 2001)

Garbarino and Johnson (2001) have found that different attributes of the product are likely to influence to different goals of customer. This belief is part of the multiattribute model which postulates that person's overall attitude toward an object is a linear function of one's perceptions of the product's attributes together with evaluation of significance of each attribute (Shocker & Srinivasan 1979, Westbrook 1981). The theory implies that especially the attributes that customer sees as important, define the overall satisfaction. Thus, in the assessment of the product attributes customer gives stronger emphasis to those which serve one's goals. Consumption goals can be defined as benefits that consumer looks for (Huffman & Houston 1993). It can be found from literature that benefits customer is searching, determine which attributes are central in affecting customer satisfaction and intention to repurchase (Mittal et al. 1998, Spreng et al. 1996). Understanding of this allows marketers to assess the areas in need for improvement, and those which are not needed to put so much importance, as well as focus the marketing efforts accordingly. (Garbarino & Johnson 2001)

Pieters et al. (1995) mention that goal structure is conceptually related to consumer involvement which has essential role in consumer behavior. Involvement can be defined as perceived significance of an event or object for individual which indicates the level of motivation experienced. Greater degree of involvement for example results that consumers are more willing to put more effort to perform their behavioral intentions (Mitchell 1981, Stone 1984). Research has generally agreed that when object or event is linked to important goals, centrally held values or self-concept, consumers have a sense of involvement (Mitchell 1981, Mittal 1989, Bloch 1981). Pieters et al. (1995) found that variation in consumer's level of involvement can be due to diversity of goals or diversity on connections between goals, or both. Consumer might have very similar goals, but they can be connected differently, which is why it is essential to understand the connections between goals.

Bagozzi and Lee (1999) and Bagozzi and Dholakia (1999) note that in the marketing research the role of goals has relevance especially in the area or new product adoption. The greater the degree of newness, the more challenging it is for customer to assess the product and consider the fulfilment of the needs since there is no previous experience with the product. Hence, marketers often try to disclose customers' responses to new products by presenting prototypes or concept statements and analyzing their reactions and evaluations to the products. However, this approach may be inadequate since customers have problem to relate new product to deeper needs and values, and hence customers' responses may be only partially formed psychological responses. Consequently, it is important to try to understand the customers' cognitive structures of underlying values and goals more comprehensively. To uncover these Barsalou (1991) suggests disclosing goal-derived categories, Bagozzi and Dabholkar (2000) suggest hierarchical maps of superordinate goals and Zaltman (1997) suggests consumer metaphors.

3.4 Goals in organizational behavior

Webster and Wind (1972) state that organizational decision making is influenced by multiple people and complex interactions occur among people as well as among individual and organizational goals. Hence, multiple goals and potentially conflicting

criteria can occur in decision-making. Also, Johnston and Lewin (1996) agree that organizational buying behavior is multiperson, multidepartmental, multiobjective and multiphase process. The process is very dynamic and complicated, and the decision maker is impacted by complex set of issues and situational factors that directly or indirectly have effect on organization's decision making and buying behavior.

In organization, expectations, goals, attitudes, information and assumptions used by each individual in the decision making are impacted by the set of variables which are tasks, structure, technology and people of the organization (Leavitt 1964). Because of organizational factors individual acts differently than in situation where one would be operating alone or in other organization. In organization individual is motivated by and controlled by organization's goals and restrained by technological, financial and human resources. (Webster & Wind 1972) Wacker (1981) mentions that behavior in organizations is in the first-place function of interpreted goals rather than rigid needs of values. Hence, individual's behavior in organization reflects individual's abstract understanding of how company ties strategies to its goals. Organizations and buyers in organizations select and process information in different way as they have dissimilar mental models, dissimilar buying procedures and dissimilar perceived goals. (Skytte & Bove 2004)

In addition, decision making process of individual is motivated by complex combination of personal and organizational goals, restrained by certain organizational policies and also influenced by other individuals in organization. When making decision, individual is motivated by combination of organizational and individual goals, and one needs to consider the satisfaction needs of the several actors. Other actors in organization set the role expectations for individual, have impact on the determination of goals in decision making, determine the payoffs to be received for performance, and create and share the information that individual uses when evaluating the decision. (Webster and Wind 1972)

When analyzing motives of organizational decision maker, it is essential to note that both task and non-task motives influence to the decision to buy or adopt the product

or service. Non-task motives refer to individual's own motives concerning the organization and acting there, whereas task related motives refer to certain buying decision in the organization and the general buying criteria is evaluated. Non-task motives can often have more influence on the decision making. Webster and Wind (1972) mention that individual may choose to follow personal criteria and goals especially in the situation when all other things are even.

Non-task motives can be classified into achievement motives and risk-reduction motives. Achievement motives relate to personal advancement and recognition. Risk reduction motive plays critical link between organizational and individual decision-making process. In the behavioral theory of the firm key component of motivating organizational actors is in fact the uncertainty avoidance. Individual's perception of risk when making decision depends on the uncertainty and the value of different outcomes. Individual may have uncertainty about available alternatives, about the outcomes and uncertainty about others' reactions to the decision. (Webster & Wind 1972)

4 THE MEANS-END APPROACH

Reynolds and Gutman (1988) suggest that application of personal values perspective to marketing research can be divided into two theoretically grounded views, macro and micro. Macro perspective represents sociology and employs standard survey research methodology combined with classifying respondents into predefined taxonomies of values, while micro perspective represent psychology and aims to understand consumers' cognitive structures and motivations without deploying predefined categories such as value inventories, and thus allows consumers to speak by themselves. Macro survey perspective reveals only part of the answer, whereas the more psychological and in-depth understanding of consumer can be gained by applying the means-end theory.

4.1 Conceptual model behind the means-end theory

In order to understand the means-end model it is relevant to understand concepts behind the theory. Consequences are central in understanding the model. Gutman (1982, 61) defines consequences as "any result (physiological or psychological) accruing directly or indirectly to the consumer (sooner or later) from his/her behavior". Consequences can be desired or undesired. In literature desirable consequences are related to benefits (Haley 1968, Myers 1976), which are derived from the consumption of products. (Gutman 1982) Reynolds and Olson (2001) mention that consequences can occur at different level of abstraction from instant consequences to more psychological consequences to highly subjective goals or values.

Consequences can be classified into physiological, psychological or sociological and to direct or indirect. Physiological consequences refer to satisfying the needs such as hunger or thirst, psychological consequences refer to consequences that are caused from one behavior such as self-esteem, while sociological consequences refer to needs such as better status or being part of some group. Reynolds and Olson (2001) combine psychological and social consequences by referring them as psychosocial consequences. Direct consequences, also referred

as functional consequences, are gained directly from the act of consumption, whereas indirect consequences occur when individual reflects the reactions of other people to one's consumption behavior. In addition, indirect consequences can occur in situation when direct consequences lead to other consequences. Furthermore, some consequences can occur immediately, whereas other occur later after the consumption. (Gutman 1982, Reynolds & Olson 2001)

It is values that determine whether consequences are perceived as negative or positive. Consumers aim to select actions that lead to positive consequences and minimize the negative consequences. Values also determine the level of importance given to the consequences. Consequently, in the means-end chain model the linkage between consequences and values is critical in order to understand the customer. (Gutman 1982)

According to Gutman (1982) it is essential to also understand meaning of product-use situation. Gutman refers to product-use situation as any setting, where use of commercially available product or service is involved. Consumption situations provide an opportunity for customers to achieve desired consequences and customers learn what product choices produce desired consequences in different situations. Product-use situations are assessed with respect to their potential impact over time. For example, length of the time frame customer adopts regarding the use situation can affect how important certain consequences are considered.

4.2 The means-end theory

The means-end theory developed by Gutman (1982) offers an effective and convenient approach to understand why and how physical product features or attributes gain personal relevance or meaning for consumers. The theory leans to two fundamental assumptions in consumer behavior; values have significant role in guiding choice patterns, as well as individuals cope with huge variety of products that all can be potential satisfiers of their values and to limit the complexity of choosing, individuals group products into sets or categories. Furthermore, two other assumptions of more general nature are in the core of the means-end theory; every

consumer action leads to consequences and that certain consequences are learned to associate with certain actions.

The means-end theory simply explains the rationale underlying why certain consequences are perceived as important. According to the theory, product or service attributes are connected to certain consequences, which are further connected to certain life values or personal goals in means-end chain. (Gutman 1982) Botschen et al. (1999) note that it is not attributes that explain why person buys or uses product or service, rather it is the solution derived from consequences or subsequent personal values that attributes deliver. Consequently, the means-end theory leans to perspective that values have central role in defining underlying consumer's preferences and choice behavior (Gengler et al. 1999, Henshel 1971, Homer & Kahle 1988, Rokeach 1973, Rosenberg 1956, Wickert 1940).

In the most general formulation, the means-end chain construes from the sequence of attributes, consequences and values (A-C-V). Attributes, the "means", are referring to features or appearances of products or services, consequences accumulate through usage of the product or service and values or goals, "the ends", determine why certain consequences are important (Gutman 1982). Also, six-level model have been suggested by Olson and Reynolds (1983) to be able to distinguish finer levels of attributes and consequences. The extended model covers concrete attributes, abstract attributes, functional consequences, psychological consequences, instrumental values and terminal values. However, majority of researchers state that six-level model is not necessary for most purposes. Consequently, most common means-end chain model that have been applied constitutes from four levels of attributes, functional consequences, psychosocial consequences and values or goals, where functional consequences occur directly when using the product, whereas psychosocial consequences are personal and social outcomes of consuming the product. (Gutman 1982, Olson & Reynolds 2001)

The means-end theory postulates that customer's goal directed purchase behavior are conscious and voluntary. Thus, conscious choice among alternatives is required when making purchase decision. Even though, purchase process may become

habitual at some point, it is believed that conscious decision making has occurred in the past, and if it is the case decision-making can be understood through the means-end model. (Olson & Reynolds 2001)

In the core of means-end theory is to understand linkages between attributes, consequences and values. They form a chain that has hierarchical structure since the concepts are connected from more concrete level of meaning to concepts at more abstract level (Olson & Reynolds 2001). Veludo-de-Oliveira et al. (2006) mention that typically, large number of attributes funnels a few values through consequences. The chain is also called ladder or perceptual orientation. Customers use these perceptual orientations to distinguish between and among products in certain product category. (Reynolds & Gutman 1988)

The method that is frequently used to reveal the linkages between attributes, consequences and values, and thus the underlying motivations of the consumer concerning the certain product class is laddering. Laddering is in-depth interviewing technique which aims to understand the way “consumers translate the attributes of products into meaningful associations with respect to self” (Reynolds & Gutman 1988, 2). The results of laddering interview are illustrated in hierarchical map, which describes the relationship among attributes, consequences and values. (Reynolds & Gutman 1988)

4.3 Application of the means-end theory

Gutman’s means-end theory has received wide acceptance in marketing research (Peter & Olson 1994). Especially, the theory has been used widely in consumer research (Gutman 1982, Gutman 1990, Gengler et al. 1999, Walker & Olson 1991). Already, Vinson et al. (1977) have disclosed various areas in marketing management where examining values is beneficial. Most importantly, means-end theory allows marketers to create products and marketing messages to meet better consumers’ values and goals. The main areas the means-end theory can be applied, is market analysis and segmentation, product development and

promotional strategy. (Gutman 1982, Reynolds & Gutman 1988, Reynolds & Rochon 1991, Walker & Olson 1991)

Even though the means-end approach is more common in business to consumer context, it has also been applied to business to business marketing studies determining means-end chains in companies (Skytte & Bove 2004). For instance, Skytte and Bove (2004) explored fish and pork retail buyers' purchasing motivation using the means-end chain approach, and generated ideas for fish and pork manufacturers to improve the marketing activities and obtain competitive advantage. Jamshidi and Sepehri (2007) studied decision making process when using B2B website and identified the factors that shape the usability of B2B websites, as well as Henneberg et al. (2015) explored the complaint management expectations of British and German organizational buyers using the means-end approach.

Companies serving B2B customers will greatly benefit from the understanding on how their offering increases the value for buying organization and also partly for the end user (Grünbaum 2017). Woodruff (1997) mentions that in organizational context hierarchical structure can be understood as desired attributes and attribute performances, desired consequences in use situations and as customer goals and purposes. Skytte and Bove (2004) add that attributes are features of the product and its components or activities, consequences are what product causes for customer and it also includes the consequence how supplier helps the customer to serve its downstream customers and finally, the highest level of abstraction reflects the purposes and goals of either individual, buying unit, company or shareholders.

Since the context of the study is in the usage of the digital solution, it is also relevant to discuss how the means-end approach has been applied in user experience studies. Abeele and Zaman (2009) suggest the means-end theory is useful approach for researchers and designers to understand how concrete product attributes create value for end user. Several researchers have applied means-end theory to create design recommendations. Subramony (2002) used laddering to explain why certain websites are chosen over others. Jans and Calvi (2006) relied

on laddering and association techniques when developing user-friendly mobile city application. Zaman (2008) utilized laddering to assess the children's preference towards games. Abeele and Zaman (2008) used laddering to extend the likeability framework by examining media application design for preschoolers.

4.4 Applying the means-end approach to value hierarchy vs. goal structure

It has become clear that both goals and values can be understood as a hierarchy. Consequently, the means-end chain approach can be used to understood both. A goal structure and hierarchical value map have very similar characteristics, and elements in value-hierarchy can be considered also as goal-hierarchy (Gutman 1997, Pieters et al. 1995). Actually, higher level very abstract goals can be understood as equivalent to values. In fact, some researchers define goals synonymously to values (e.g. Schwartz 1992, French & Kahn 1962, Zedeck 1997, Locke 1976). Similarly, attribute and consequence level can be seen being equivalent to subordinate and focal level goals in goal structure. Thus, both goals and values can be revealed using laddering as a technique (Pieters et al. 1995, Gutman 1997).

5 RESEARCH DESIGN AND METHODS

In the following, the research and data collection methods used in this study are introduced. Firstly, the research context and chosen research approach are discussed. Secondly, the data collection methods and how data is analyzed are described. Finally, the reliability and validity of the research are evaluated.

5.1 Research context

Neste is developing the solution that allows customer to pay refueling with the mobile app. The app is already available for private consumers but there is intention to launch it for business customers as well. In addition to the mobile app, business customers are provided with the background system. Altogether the new solution for business customers comprises the mobile app which is used for paying the fuel and for example finding the closest stations, as well as background system which is used for controlling the employees' access rights and creating user reports such as the amount and price of total refuels in month, and the time and location of refueling events.

Neste has a lot of business customers from different segments. The new solution is offered for most of the segments. However, it is taken account that for certain segments solution is not that necessary, while for others it can be very beneficial. Hence, there is already lot of challenge to develop a solution that could serve multiple segments. The better understanding from the customer can be created, easier it is to answer the needs of the customers.

In order to develop the solution, Neste is conducting user studies together with external research organization to explore what features are desired and how the solution should be designed. However, in the hectic business world there is seldom time to really gain deeper insight from the customer and understand the underlying motivations that engage customer to adopt or use the new product or service and only scratch from the surface of the customer can be obtained. This may also affect to the result of the study that Neste and the external organization is conducting and its reliability and validity. Consequently, also solution may fail to meet important

customer needs. The purpose of this master's thesis is to fill this gap and concentrate to gain deeper understanding from the customers in order to develop even better mobile payment solution for business customers of Neste.

5.2 Research approach

As the purpose of the study is to explore the underlying values and goals and understand the behavior, the qualitative research approach is chosen. Bryman and Bell (2007, 27) state that qualitative research is especially suitable for understanding different behaviors, values and beliefs that are based on existing research gap. Qualitative research aims to describe complex real-life phenomena and build holistic understanding. Baseline for the qualitative research is that reality can be very complex in nature and simultaneously happening events influence on each other. (Hirsjärvi et al. 2009, 161) Purpose of the qualitative research is to concentrate to analyze the phenomena thoroughly and generally it focuses on small samples. (Eskola & Suoranta 1998, 18) Hence, the purpose is not to test any hypotheses, but to create a comprehensive and detailed examination of the research object. The methods used in qualitative research allow the voice of the research object to be heard. (Hirsjärvi et al. 2000, 152)

The nature of the study is exploratory. The research strategy that has been applied is single case study method. The case study is particularly suitable for exploring event or phenomenon in depth in real-life context. The case study aims to understand how, what and why questions. In the case study the evident of boundaries of phenomenon being studied and context is not clear. Single case study method allows to analyze the phenomenon that happens only in certain context such as specific organization. (Saunders et al. 2009, 146)

5.3 Data collection method

The data collection method employed in this study is in-depth interview technique termed as laddering which allows to obtain deeper insight from the customers. With

the technique customer's underlying values and goals can be revealed and it can be understood if the new solution really is relevant for customer and if it brings any value. In the following, principles of laddering technique are presented.

The laddering begins by trying to identify most significant attributes of specific product for the respondent. This is done by asking the interviewee to consider characteristics that describe or make difference between brands or products. Reynolds and Gutman (1988) have identified three main methods for eliciting distinctions. First technique is termed as "triadic sorting" where the researcher presents three different products and respondent has to express similarities and differences that two of the products have in relation to third product. Second technique is referred as "preference-consumption differences" where respondent has to indicate the reason the certain brand is more attractive than the others. In the third technique, termed as "differences by occasion", respondent is asked to reflect prior usage of the product by describing the experience. Generally, at least two different methods for eliciting distinctions is used in interview. After eliciting distinctions, interviewer needs to clarify from respondent which pole of the distinction is desired. The chosen one is the base for probing process. (Reynolds & Gutman 1988)

After selecting the key distinctions, interviewer tries to reveal the ladder related to product attribute. This is done by asking "Why is this attribute important to you?". When asking this, respondent has to think the motivation for attribute selection and explain related possible and favored consequences. After reaching the consequence level, the process continues further by asking again "Why is this important to you?". "Why" is asked as long as all the possible elements of the ladders have been revealed and respondent is not able to answer the question any more. By repeating the question "why", respondent climbs up the ladder. This technique is central element of laddering. (Gutman 1982, Reynolds & Gutman 1988)

The technique allows detailed and in-depth understanding of higher level distinctions and describes how customer processes product information and why a certain attribute or a consequence is important, and at the deepest level, how the

consequences serve personal values and motivations. The goal is to identify and gain understanding about the relationship between key perceptual elements of attributes, consequences and values. Only gathering list of different attributes, consequences and values is not enough. By understanding the association networks, the meaning of product attributes to the user can be explained and value level distinctions identified. (Gutman 1982, Reynolds & Gutman 1988)

Laddering technique has several benefits. Reynolds and Gutman (1988) mention that it is less biased since it does not adopt any theoretical framework in advance. Moreover, according to Olson and Reynolds (2001) laddering lets respondents express their views in their own words and do not make any presumptions, and also allows deeper understanding of the respondent due to systematic nature of asking "why" questions and deriving higher level values and goals. Consequently, laddering also gives answer how these higher level values and goals are fulfilled.

According to Reynolds and Gutman (1988) the length of laddering interviews varies on average from one hour to one and a half hour, of course depending from the research context. The recommended number of respondents varies between 10-100. Generally, two or three ladders can be revealed from individual. However, in some situations, about one-fourth of the interviewees are not able to go beyond one ladder. (Reynolds & Gutman 1988)

When conducting laddering interview, approving and non-judgmental environment is preferred. As the purpose is, that interviewees are willing to be introspective and look inside themselves, they cannot have the feeling they are threatened. In order to create relaxed feeling for the respondent, interviewer may declare that there is no right or wrong answers and underline that the idea of the interview is simply understand how the individual sees the specific product. In the interviewing situation, the interviewee is positioned as an expert and interviewers must position themselves merely facilitators of respondent discovering the underlying perceptions and behaviors. In addition, to explain the process for the respondent, interviewer can also state that most of the questions can seem to some extent obvious or even stupid, but it is basic nature of the interview. Interviewer is required to follow the

guidelines that in the end, make the respondent to critically explore the assumptions underlying in their commonplace behaviors. (Reynolds & Gutman 1988)

In the interview situation, it is important to remember that interviewer must keep the control of discussion, as always in the qualitative research. However, it is not as easy since the focus is in more abstract concepts. Thus, the question “Why is this important to you?” is essential in keeping the control of the dialogue, as well as showing the genuine interest of the researcher. The feeling of caring and involvement helps the interviewer to get under the surface of the respondent and identify the reasons for certain behaviors. In addition, the comprehensive knowledge of the means-end theory is necessary, in order to truly understand the behavior. (Reynolds & Gutman 1988)

The full laddering method contains qualitative as well as quantitative procedures. This is unique feature of laddering, which distinguishes it from other qualitative methods. After conducting the one-to-one interviews, the process continues by transcribing and coding the main elements uncovered from the interviews. After this quantitative method takes place. (Reynolds & Gutman 1988)

The in-depth interview laddering technique described earlier is referred also as soft laddering. In addition to traditional soft laddering technique, there also exist technique termed as hard laddering. Hard laddering contains more structured data collection procedures such as self-administered questionnaires rather than interviews. (Veludo-de-Oliveira et al. 2006) Grunert and Grunert (1995, 216) have defined that “hard laddering refers to interviews and data collection techniques where the respondent is forced to produce ladders one by one, and to give answers in such a way that the sequence of the answers reflects increasing levels of abstraction”.

According to Botschen et al. (1999) compared to soft laddering, hard laddering enables more efficient data collection. Furthermore, it has the advantage of minimizing influence of the researcher and some of the potential biases. However, it should be noted, that validity and reliability of hard laddering is not as well-

grounded as soft laddering and compatibility of these techniques still remains unclear. Gengler and Reynolds (1995) state that hard laddering battles against the core assumption of the method, which is to enable spontaneous answers from the respondent. Grunert and Grunert (1995) note that soft laddering should be especially used when the interviewee's level of knowledge about the product is too low or high, since it allows better understanding of the respondent's behavior. However, when the research area is familiar, and reconstruction of meanings is relatively easy, hard laddering is potential approach.

In this study the technique chosen is soft laddering method, since the product studied is just in the development phase and the customers' knowledge about the product is very low. In the following the data collection process is described.

5.4 Data analysis method

In laddering the data analysis process starts with transcribing the interviews. This is followed by recording all the ladders across respondents on a coding form. After gaining comprehensive picture about the types of elements disclosed from the interviews, process continues by developing summary codes that describe everything mentioned by the respondents. To develop the summary codes, responses need to be classified to three levels of reflecting either attributes, consequences of values, which is followed by breaking down all the responses into individual summary codes. It should be remembered that it is important to create categories that are broad enough to achieve replications of more than one respondent indicating one element leading to another. However, if coding is too wide some meanings can be lost. Hence, finding the right balance is essential. To assure this, several coders should be used to evaluate the categories. Furthermore, in the categorization it is important to remember to focus on the meanings that are meaningful to the purpose of the study and that the relationships between the elements are in the focus rather than only the elements. (Reynolds & Gutman 1988)

After finishing summary codes, number is given to each. Then, the given numbers are utilized to score each element in each ladder, which forms a summary score

matrix. In the matrix rows represent a ladder of an individual respondent. One person can have several rows, since usually respondents produce several ladders. Columns represent the number of elements in the longest ladder as well as any identification or demographic codes. A completed summary score matrix is the base for defining the dominant connections among key elements and for summarizing the subgroups. (Reynolds & Gutman 1988)

Next, the implication matrix is created. The implication matrix indicates how many times each element leads to other element. There can exist two types of relations between the elements, direct and indirect relations. It is recommended that both types of relations are taken into consideration in the study. A researcher also needs to consider how many times to count the relation among the elements mentioned by individual if respondent mentions the relation several times in the interview. The option is to count the relation every time respondent mentions it or count it only once for each respondent, no matter how many times they mention it. (Reynolds & Gutman 1988) In this study both direct and indirect relations are considered, and relations are counted every time each respondent mentions it. In implication matrix connections are expressed in fractional form, where indirect relations are expressed on the right side of the decimal and direct relations on the left side of the decimal. Implication matrixes can be found from appendix 3. and 4.

After finishing implication matrix, hierarchical value map is constructed. Hierarchical value map (HVM) illustrates the dominant perceptual orientations of certain product or service and reflects how product or service is seen in the eyes of customer. It allows to represent subjective data in a meaningful way. HVM is created by reconstructing chains from aggregate data. To avoid confusion, in data analysis, “chain” refers to sequence of elements which are gathered from the aggregate implication matrix, and “ladder” refers to individual respondents’ elicitations. (Reynolds & Gutman 1988)

In constructing HVM considerable amount of ingenuity is required. Only guideline is that crossing lines should be avoided at all cost. By following this discipline, it can be assured that the map is coherent and more interpretable. In addition, it should

be noted that “unnecessary” links need not to be included in the map. For example, in the situation when two elements are connected both directly and indirectly, only indirect link is illustrated. The construction of the hierarchical map simply starts with connecting chains as expressed in matrix. However, it should be noted that not all links are included to the HVM. Reynolds and Gutman (1988) suggests that one should set a certain cutoff level which determines minimum number of links that item should have before it can be considered to be included in HVM. A few different cutoff levels can be used and finally select the one that appears most informative and as most stable set of relations. It is suggested that cutoff level could somewhere between 3 to 5 relations when sample is around 50 respondents. It this study cutoff level is at 2 because of the small number of respondents. Best way to construct HVM is to start with the first row where the chosen cutoff level or value/goal appears, and then proceed one row at a time. After each row, it is desirable to go back to the beginning and check if other relevant relations can be inspected which are not yet in the completed chain. (Reynolds & Gutman 1988)

After gathering all the elements to the HVM, it is essential to determine the dominant perceptual pathways. It is done by considering the amount of direct and indirect relations each element has with other elements. By determining perceptual pathways better insight to core values and goals can be gained and it is seen what consumers consider as most important. Nevertheless, it is also essential to pay attention to all the pathways since weaker pathways can provide significant information that can be utilized for different purposes. (Reynolds & Gutman 1988)

5.5 Reliability and validity

Reliability of the research refers to the extent that data collection techniques and analysis methods produces consistent findings and results that can be repeated (Saunders et al. 2009, 156, Stenbacka 2001) However, Stenbacka (2001) states that this definition is not totally applicable in qualitative research, since definition is derived from the experimental-psychological traditions, where researcher and method are seen as separated entity, which is impossibility especially in the qualitative research. Rather reliability of qualitative research is guaranteed when

researcher is able to describe the research method and the process comprehensively and the process is made visible by presenting detailed description of preparation, data collection and data analysis. In the present study, this is carefully taken into consideration, and thus research methods are discussed thoroughly to ensure the reliability. In addition, biases and other beliefs are presented that may affect the interpretations and analysis of the results.

Validity is concerned whether the study actually measures the intended object of measurement. However, again Stenbacka (2001) mentions that definition is not totally applicable in qualitative study, since in the first place, aim of the qualitative study is not even to measure anything. Rather the aim is to gain in-depth understanding of the phenomena. The researcher suggests that in qualitative research, validity is generated when strategically well-chosen respondents are given opportunity to express freely their knowledge structures in non-forcing interviews.

This rule is strictly followed in the present study, and thus it can be said that validity is guaranteed. As mentioned earlier, respondents are chosen so that wide outlook is gained from the customers that operate in the variety of industries and it is assured that they have the needed knowledge in order to participate in the interview. In addition, when using soft laddering technique, it is especially assured that not any presumptions are made, and respondents are given opportunity to express their views freely about the new solution, thus attributes, consequences and goals are freely suggested by respondents. All the interviews are recorded, which ensures that not any presumptions are made by relaying just on memory. There is an opportunity to always listen the interviews again and check accuracy of identified attributes, consequences and goals and the ladders they form. An issue that may weaken the reliability of the study is that recommended respondents amount for laddering is not achieved. However, when analyzing the data, it was noted that not much new information was derived from the last interview, which is a positive sign for the validity of the study.

6 ANALYSIS AND RESULTS

In the following, the data collected from the study is analyzed and the results of the research are presented. First the data collection process is described, and interviews are evaluated. Next the identified attributes, consequences and goals are discussed. Then, the hierarchical value map is analyzed, and relative importance of the goals is disclosed.

6.1 Data collection process

Laddering interviews were conducted for five different business customers of Neste. All customers operate in slightly different industry, so wide outlook of the customers was obtained. In every company one representative was selected for the interview. It was assured that the person who was being interviewed is involved or responsible for the decision to use mobile application and background system in the company and is able to evaluate the effects of new solution's usage. Table 1. offers an overview of the respondents. It describes the industry the company is operating, the respondents position in the particular company, as well as the date the interview was conducted.

Table 1. Interview details

Industry of the company	**Respondent's position**	**Date**
Transport services	Chief Procurement Officer	22.3.2018
Transport services	Chief Executive Officer	27.3.2018
Property management	Office Manager	28.3.2018
Retail sale of vehicles	Chief Financial Officer	3.4.2018
Installation of heating, water pipes and air conditioning	Chief Procurement Officer	16.5.2018

The interviews started by introducing the new mobile payment solution briefly and asking a few background questions such as had the interviewee used any mobile payment application before and what was their thoughts about mobile payment. Then the interview continued by presenting the laddering technique and explaining the process. It was explained that the technique may feel obvious and even a bit comical, but it is the nature of the technique and respondent needs to be open minded and throw oneself into the situation. In addition, it was emphasized that the technique is used because it allows to create best and most realistic picture of the customer's needs, and hence the best possible solution for the customer can be created. In addition, it was taken into consideration that when using the laddering technique, it need to be assured that questions are not too loaded, and respondents mention the attributes that come to their mind as most important, and not any fallacious assumptions were made.

The interview was divided into two categories where the ladders could be elicited. First concentrating to the mobile payment of refueling, and second to the background system. The reason why the questions were divided into two categories was that the mobile payment concerns only the payment itself in the station, but for the businesses the background system is essential part of the solution as well. Thus, it was important to assure that both subjects were discussed.

The actual laddering started with eliciting distinctions. This was done by asking "What positive do you see that the mobile payment could bring to your company?". The purpose of the question was to get respondent to consider the mobile payment and what benefits it could bring to company. The question was tried to phrase very clearly and with spoken language so that no mixed meanings could arise. After this question, a few attributes, usually two to three attributes, were elicited and the actual probing process started. The respondent was asked over and over again "Why is this important to you?" until reaching the values or goal level. The most abstract level was reached when the interviewee could not answer to why questions anymore and said for example "it is the way it is" or "I don't know". This was repeated for each attribute elicited. After revealing the underlying goals and values for the mobile

payment, the probing process was repeated to explore same issues for the background system.

The interviews went relatively well despite the fact that the interviewer did not have any prior experience from the laddering. However, laddering technique was tested before actual interviews with the voluntary person. From the interviews with the five business customers in total 53 ladders were probed concerning mobile payment and its background system. Each respondent provided three ladders, on average. This is consistent also with findings of Reynolds and Gutman (1988).

The interviewees were very open minded and ready to answer repeated “why” questions and in the most occasions higher level of abstraction was reached. However, in organizational context the level of abstraction was not as deep as it might be in consumer research. Hence, in this study the highest level of abstraction is referred as goals, as it is more suitable term than values in the organizational context. In fact, several researchers understand work values synonymously to goals and work values are goals in work setting, which rationalizes the usage of the term goal instead of values (e.g. Schwartz 1992, French & Kahn 1962, Zedeck 1997, Locke 1976). All the same, goals and values can be understood similarly as the highest level of abstraction.

The proceeding of the interview did not always go clearly from attribute to consequence and from consequence to goal. Rather respondent could go to attribute, then to consequence and other consequence and then to goal and then again to some other consequence. In addition, in some situations respondent was not able to reach the goal level at all. However, during the process of transcribing and construct of individual ladders, thoughts of the customer were organized so that they clearly reflected the attribute-consequence-goal levels. In Figure 2. sample of one respondent’s ladders is presented.

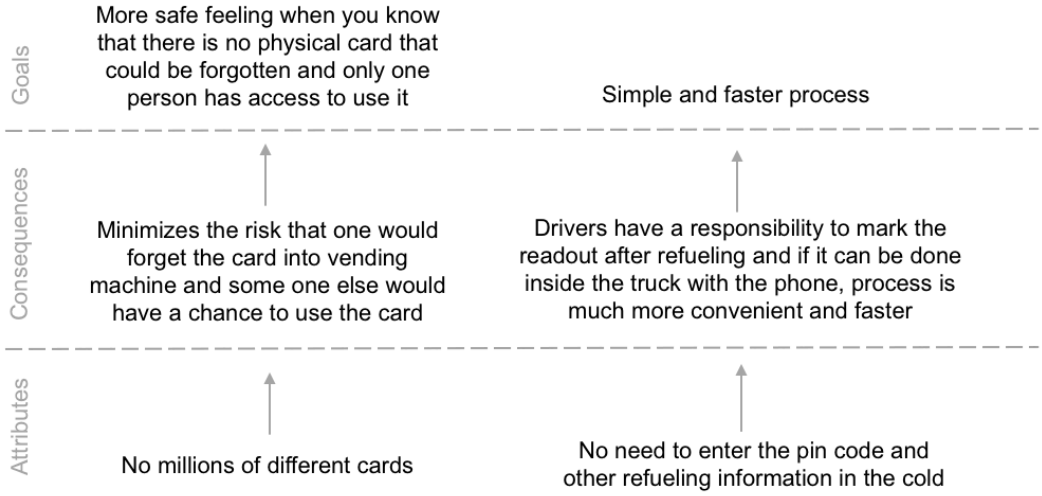

Figure 2. Example ladders from one respondent

After transcribing the interviews and converting raw interview data into ladders, summary score matrix was created. In summary score matrix elements that have similar meaning were classified under the same summary code in order to simplify the data. However, as summary codes simplify the data, the meanings of content codes are explained in more detail if they are not clear. Finished summary score matrixes can be found from the appendix 1. for the mobile payment and from the appendix 2. for the background system.

In the following, attributes, consequences and goals derived from the interviews are discussed. To ensure the clear presentation of the result, attributes, consequences and goals are presented separately for the mobile payment and for the background system. However, mobile payment and its background system are so closely related that elements elicited may be overlapping to some extent. This is of course natural, since together they construct the complete solution offered for business customers.

6.2 Attributes

In total 17 attributes were derived from the interviews. Table 2 describes summarized attributes and content codes given to them regarding the mobile payment and table 3 regarding the background system. As the mobile payment solution is still in development phase the attributes mentioned are those that

respondents expect to be included in the solution in order to use it or they just see that attribute is important reason why they would use the mobile payment.

Table 2. Attributes elicited from the mobile payment

List of desired attributes for the mobile payment
A1: No physical cards
A2: Pin codes
A3: Faster and more convenient refueling
A4: Ease of use
A5: Information security
A6: Identification of private and corporate side
A7: Fluent onboarding process
A8: Quick payment
A9: Availability

As seen from table 2., for mobile payment 9 attributes were elicited from five respondents. “No physical cards” was elicited from every respondent with the exception of one. Thus, it can be assumed that the attribute is viewed relatively important. In addition, “pin codes” and “identification of private and corporate side” was mentioned by three out of five respondents. The attribute of “pin codes” refers to the set of the pin code, which leads to either positive or negative consequence. “Identification of private and corporate side” clearly raised concern among respondents. The mobile app includes both private and corporate side, and it was mentioned that their difference was not clear enough indicated in the app. Thus, this is one issue that need to be resolved since it can decrease the intention to use the solution. Other attributes listed were only mentioned by one or two respondents. The fact that “faster and more convenient” refueling and “quick payment” were mentioned only once was first surprising, since for private consumers these attributes are emphasized. However, for business customers the mobile payment transaction itself seems to be less relevant. The “faster and more convenient refueling” refers for example having more convenient refueling process when pin code and other refueling information can be entered inside the car, which is appreciated especially in the cold weather. The “availability” refers to the fact that

workers always have phone with them no matter what, whereas credit cards may be forgotten more easily.

Table 3. Attributes elicited from the background system

List of desired attributes for the background system
A1: Track of the refueling limits and deviations
A2: Maintainability of the system
A3: Not too complicated log in
A4: Overview of the refueling events
A5: Detailed information of the refueling events (kilometers, time, location, price, liters)
A6: Possibility to adjust location, time, amount, and product purchases
A7: Personal user rights
A8: Customization of user rights

Table 3 describes the attributes elicited concerning the background system. For the background system all together 8 attributes were elicited. “Track of the refueling limits and deviations” was mentioned by three out five respondents. “Track of the refueling limits and deviations” meant especially possibility to get notification when preset refueling limits are reached or if someone refuels for example outside the allowed time or location as well as fast adjustment of the refueling limits and user rights. In addition, “detailed information of the refueling events” was mentioned by three out of five respondents. As described, detailed information includes for example insight of driven kilometers, time, location, price and amount of refueling from each user. Also, “overview of the refueling events” was mentioned by three out of five respondents and even two times by one respondent. The attribute refers to possibility to have pre-made and comprehensive reports from refueling events such as what has happened for example during the past month and count for example average fuel consumption. In addition, these events should be clearly visualized in the system, so the insight can be gained quickly. Other attributes elicited were mentioned only once. By “personal user rights” it was meant that each worker has their own user ID and they can be identified individually. Then again by “customization of user rights” it was meant that there is possibility to adjust different rights for every worker according to the needs.

6.3 Consequences

In total 27 consequences were derived from the respondents concerning the mobile payment and the background system. These are described in table 4. and 5., again for both the mobile payment and the background system separately. As Gutman (1982) mentions, consequences may be desired or undesired, direct or indirect as well as functional or psychosocial. In the present study both desired and undesired consequences were identified, as well as direct and indirect consequences. However, only functional consequences were mentioned, and no psychosocial consequences were found. Possible explanation can be the organizational context where decision making is very rational, and thus it can be assumed that social and psychological consequences seldom occur.

Table 4. Consequences elicited from the mobile payment

List of desired consequences for the mobile payment
C10: Minimize the risk of misuse
C11: Harmonization of pin codes
C12: More convenience for workers
C13: Will not use at all if poor user interface
C14: Frustration if too many problems
C15: Less time for management of the cards
C16: If employee accidentally fuels with their own credit card problems may occur
C17: Fear that employee sets too easy pin code
C18: Fear of misuse
C19: Phone will not get lost as easy as cards
C20: High refueling limits
C21: Cards erode quickly and cause troubles
C22: Concern for remote reading of cards

For the mobile payment the consequence that was mentioned the most, was “less time for management of the cards”. Three out of five respondents mentioned the consequence and it was mentioned several times, from two to three times. Respondents explained that in the firm there may be hundreds of credit cards and managing them takes lot of time every week. Especially when the staff turnover in

the industry is quite high, new cards need to be ordered frequently and old need to be terminated. As mentioned by most of the respondents several times, it can be assumed that the consequence has high importance. In fact, one respondent emphasized that only thing that really produces value for company in the mobile payment is that there is no physical cards and less time is needed for the management.

In addition, “minimize the risk of misuse” and “phone will not get lost as easy as cards” was mentioned by three out of five. Respondent described that the mobile payment for example eliminates the risk that worker forgets the credit card into vending machine which again may lead to misuse of the company’s credit card. Also, one respondent mentioned that there were situations when worker whose employment was terminated, did not return the company’s credit card and misuse had occurred. Consequently, the mobile payment would solve this problem when the administrator of the user rights in the firm can just cancel the user rights of the previous worker from the background system. All in all, in several companies misuse situations had occurred, which made respondent mention that the mobile payment should minimize these problems.

“Phone will not get lost as easy as cards” was mentioned by three of the respondents and actually three times by one respondent, so all together five times. The disappearance of cards was clearly quite serious problem in the target companies. And as there might be hundreds of credit cards and they get lost often, a lot of time need to be used for the management. Thus, this consequence is strongly related to the consequence of “less time for the management of the cards”. The disappearance of cards is very clear and concrete problem that the mobile payment solution can resolve.

“More convenience for the workers” was mentioned by two respondents and all together three times, as one respondent mentioned it two times. It was realized that mobile payment saves the nerves of the workers when the refueling is faster. For example, one respondent mentioned that in their company workers may need to refuel several times in a day. Thus, easier the refueling is the better. It was also

mentioned by one respondent from the transportation company that drivers have responsibility to mark the readout every time they refuel, and if it could be done inside the truck with the phone it would be much more convenient and faster. Also, respondent mentioned that it is much nicer when drivers do not need to enter pin code and other refueling information outside in the cold.

The consequences mentioned above can be perceived as desired consequences for the mobile payment. In addition, a few undesired consequences were mentioned by respondents, such as “will not use at all if poor interface”, “frustration if too many problems”, “if employee accidentally fuels with their own credit card problems may occur” when employee confuses the private and corporate side of the application, “fear that employee sets too easy pin code” and “fear of misuse”. It is also valuable to derive undesired consequences, so it can be understood what attributes and outcomes needs to be avoided at all cost. In addition, positive thing having undesired consequences was that when respondent mentioned the undesired consequence, one usually also proposed what should be included in the solution in order to avoid the undesired consequence. For example, for the “fear that employee sets too easy pin code” one respondent proposed that application should have feature that prevents setting too easy pin code such 1234 or 0000. Moreover, for the “fear that employee accidentally fuels with their own credit card” one respondents suggested that corporate and private side of the application should have different background color or some other visual element that helps to recognize the sides.

As mentioned, also direct and indirect consequences were found. Indirect consequence was for example “minimize the risk of the misuse”. For example, in one respondents ladder direct consequence was that the mobile payment eliminates the risk of losing the company’s credit card, which led to indirect consequence of making sure that card will not be misused.

Table 5. Consequences elicited from the background system

List of desired consequences for the background system
C9: More efficient working
C10: More active tracking of the refueling limits and deviations
C11: Easier to adjust refueling limits and user rights
C12: Important to see overview of the refueling events and then check the deviations if needed
C13: Minimize the risk of misuse
C14: Easier to resolve problems and other matters
C15: More freedom for employees
C16: No extra skills needed for the maintainability of the system
C17: Will not use at all if too difficult
C18: Responsibility for workers
C19: Message for workers that refueling is strictly followed
C20: Workers can monitor the fuel consumption as well
C21: Easier to track kilometers
C22: Important to balance the kilometers of leasing cars

For the background system “important to see the overview of the refueling events and then check the deviations if needed” was mentioned the most. It was mentioned by four out five respondents and actually three times by one respondent so in total six times. Thus, it is essential that the background system provides high quality reports where all the relevant information is summarized and visualized well, and no extra time need to be used for tracking the refueling events. It was also emphasized that having clear reports of the refueling events makes tracking of the deviations easier and more active, and thus misuse situations can be detected. For example, one respondent mentioned that the work of accountant is much more efficient when deviations can be tracked easier. One respondent also mentioned that having comprehensive and accurate information from refueling events is message for workers that possible misuse situations are tracked fast and worker will get caught. This way desire to steal fuel will hopefully be reduced.

“More active tracking of the refueling limits and deviations” was mentioned by four respondents as well, and in total five times as one respondent mentioned it twice.

The consequence referred to the benefit when refueling limits and deviations can be tracked more actively and easier when there is possibility to get for notification when refueling limits are reached or some deviation occurs for example when worker refuels outside the allowed time of location. “Easier to adjust refueling limits and user rights” was mentioned by three respondents and in total four times. For example, one respondent mentioned that there have been many situations were driver has called that he cannot refuel because refueling limit is reached and there have been problems to adjust the limit higher. Respondent also mentioned that company is growing fast, and thus also refueling limits may be reached faster than assumed and then it is important to have fast access to adjusting the limit higher.

“More efficient working” was mentioned by three respondents, and repeated three times by one respondent, so it was mentioned all together five times. “More efficient working” was mostly indirect consequence, which was resulted from consequences such as “ease of adjusting refueling limits”, “quick overview of the refueling events and deviations”, and “easier to resolve problems and other matters”. “More efficient working” was consequence that influenced to several actors in the companies. It was mentioned for example that accountant and assistant can have faster processes. Also, for the background system the consequence of “minimize the risk of misuse” was mentioned several times. It was mentioned by three respondents, and in total four times. In the case of the background system, the “minimize the risk of misuse” was considered more as consequence of having overview and more efficient tracking of refueling events, whereas in mobile payment it was considered to be related to the fact of not having physical cards which can get lost easier.

Also, one consequence worth of mentioning was “more freedom for employees” which was quite unexpected but very positive consequence. It tells that the mobile app and the background system may have wide effect on customer’s organization. Since, if more freedom can be given for employees, it may also result more satisfied workers which again may have many positive influences for the company. Also, for background system a few undesired consequences were mentioned, such as “will not use at all if too difficult” and also “no extra skills needed for the maintainability

of the system". With the latter, it was meant that the system has to be so easy to use that no extra skills are needed and anyone in the company can learn to use it.

When analyzing consequences elicited from the mobile payment and its background system more in-depth, it can be seen that in some explanations of the respondents, effect of different actors/individuals in organization is present. Even though all the respondents were in the position of decision maker or at least have a lot of influence to the decision, they have to consider how the adoption of new solution impacts to other actors in the company and decision cannot be made based on individual references, as mentioned also by Webster and Wind (1972).

For example, a few respondents mentioned how use of the mobile payment impacts the everyday work of the drivers when the payment is easier and entering of the refueling information can be done inside the vehicle. Another respondent mentioned how less time for the management of the cards and better overview of the refueling information can speed up the work of finance manager and accountant. In addition, one respondent mentioned that they do not have any extra person for the maintenance of the system, so it has to be easy. Here the effect of the other people and the human resources can be observed. Task and non-task motives of the respondents are difficult to evaluate from the collected data. However, it is essential to be aware of the possible effect of task and non-task motives on the interviewees' responses. As Webster and Wind (1972) note, both task and non-task motives impact the decision to buy or adopt a product.

6.4 Goals

In the means-end chain theory the highest level of abstraction can be understood as values or goals. As mentioned earlier, in the organizational context goals may describe the highest level of abstraction better. As mentioned by Webster and Wind (1972) especially in organizational context goal-oriented behavior is emphasized.

Veludo-de-Oliveira et al. (2006) mention how large number of attributes finally funnels into a few values through consequences. This was also case in the present

study. In total 13 goals were found from the respondents that give an in-depth explanation why certain attributes are desired. Goals derived from the mobile payment and the background system of course overlap to large extent. In conclusion, nine different separate goals can be uncovered from the mobile payment and the background system together. Table 6. describes goals elicited for the mobile payment and table 7. for the background system.

Table 6. Goals elicited from the mobile payment

List of goals for the mobile payment
G23: Simple and efficient processes
G24: Security
G25: Convenience
G26: Reputation
G27: Functionality
G28: Profitability
G29: Operational reliability

For the mobile payment seven goals were identified. Two goals clearly rose above others, “simple and efficient processes” and “security”. Both, “security” and “simple and efficient processes” were mentioned by four respondents and by two respondents two times, so in total these goals were mentioned six times. With the goal of “simple and efficient processes” it was meant the mobile payment would speed up and ease many processes in the company, especially concerning management of the cards. “Security” was related to the fact that no physical cards are needed, which minimizes the risk of misuse, and thus brings more security. In addition, for example one respondent said that always when payment and transfer of money is in question, he perceives security as highly important. Security can be found from Schwartz’s (1992) set of values. Additional goals mentioned were “convenience”, “reputation”, “functionality”, “profitability” and “operational reliability”. “Convenience” and “functionality” were the only identified goals that were related to actual mobile payment. Thus, convenience was brought up in the sense that it is much more convenient for the workers to pay fuel with mobile and refueling process is easier.

Table 7. Goals elicited from the background system

List of goals for the background system
G23: Operational reliability
G24: Simple and efficient processes
G25: Profitability
G26: Correct procedures
G27: Positive atmosphere
G28: Security

For the background system six goals were elicited. Also, in the case of background system “simple and efficient processes” was mentioned the most. Clearly the value the mobile payment and its background system bring, is the improvement of certain processes inside the company. For the background system the security was mentioned two times. Also, “operational reliability” was the goal that was mentioned by several respondents. It was experienced that when for example it is possible to track and adjust refueling limits and other refueling information more actively, operational reliability is better guaranteed. For example, a few respondents noted that being able to refuel is critical for the overall functioning of the company, and thus it is vital to have good track of refueling limits and events. Additional goals identified were “profitability”, “correct procedures” and “positive atmosphere”.

It can be noted that to some extent elicited goals follow the value classification of England (1967). Especially similarities can be found with the category of organizational goals. From the England’s goals organizational efficiency, organizational stability, profit maximization and employee welfare can be identified from the results of this study. Thus, it can be certified that the highest level of abstraction really reflects goals, and more accurately goals in organization. As the laddering is mainly utilized to identify personal values or goals, it can be noted that laddering is also suitable in organizational context to reveal organizational goals. However, in addition to organizational goals, some goals are more “soft” and they could be understood also as personal goals such as security, convenience and positive atmosphere.

Gutman (1982) mentions that goals and values give consequences positive or negative valences. This can also be discovered in the present study. For example, consequence of more freedom for workers could be perceived as negative or positive but as the more freedom for worker leads to the goal of positive atmosphere freedom for workers is perceived positive. However, if some company do not respect the positive atmosphere or do not realize the effect of that, freedom for workers may show itself as negative outcome.

McClelland (1985) argues that that values impact behavior especially when actions are conscious decisions. In the organization all the decisions are very conscious, which makes the exploration of the values and goals very reasoned. Bardi and Schwartz (2003) have found that values such as security, benevolence, conformity and achievement have weak relation to common behavior, which means that these occur mainly in conscious behavior. In the present study values relating to conscious behavior can be identified such as security, and in a sense also achievement can be identified as it closely parallels to goals of profitability as well as simple and efficient processes.

6.5 Hierarchical maps

As Reynolds and Gutman (1988) mention, it is not just the elicited elements in the interest but the connections between the elicited attributes, consequences and values. Thus, it is essential to build hierarchical map and take a closer look into elicited chains. The building of the hierarchical maps begun by creating implication matrix, where both direct and indirect consequences were described. Implication matrix for the mobile payment can be found from appendix 3. and for the background system from the appendix 4. Next, the links described in implication matrix were constructed to the hierarchical maps. The cutoff level was set into 2 so only links above the cutoff level are illustrated in the hierarchical maps.

The figure 3. presents the hierarchical map for the mobile payment and figure 4. for the background system. They give clear presentation of business customers' strong hierarchical perceptions of the new solution. Concerning the number of

respondents, hierarchical maps are in no way statistically proved. They simply conclude the connections with highest frequencies and illustrate how the group of business customers see the new mobile payment solution and what is their underlying motivation to use it. In addition, they break down the decision-making process of business customers and clarify the different aspects of the motivation to use the solution. It should also be noted that for the simplicity purpose hierarchical maps do not illustrate “unnecessary” links in the case when elements are linked both directly and indirectly. This follows the rules stated by Reynolds and Gutman (1988).

When analyzing the hierarchical maps of the mobile payment and background system, the findings of Shocker and Srinivasan (1979) and Westbrook (1981) are considered. They mention the multiattribute model, which postulates that person’s overall attitude toward an object is a linear function of one’s perceptions of the product’s attributes together with evaluation of significance of each attribute. Thus, attributes customer sees important determine the overall satisfaction and customer gives stronger emphasis on those attributes which serve customer’s goals. Also, Rosenberg’s (1956) expectancy-value theory postulates that consequences that are linked to important values should be more significant to an individual than those linked to less important values. Furthermore, Kim et al. (2002) note that values impact the prioritizations of needs. Consequently, this assumption is central also in the means-end theory (Gutman 1982). When understanding this, it is also easier to asses to areas for improvement and those which are not in that high importance. (Garbarino and Johnson 2001) Based on these findings, it can be assumed that in the development of the mobile payment solution, in the first place, it is essential to concentrate to meet the important consequences and goals elicited from the interviews which the hierarchical maps illustrate.

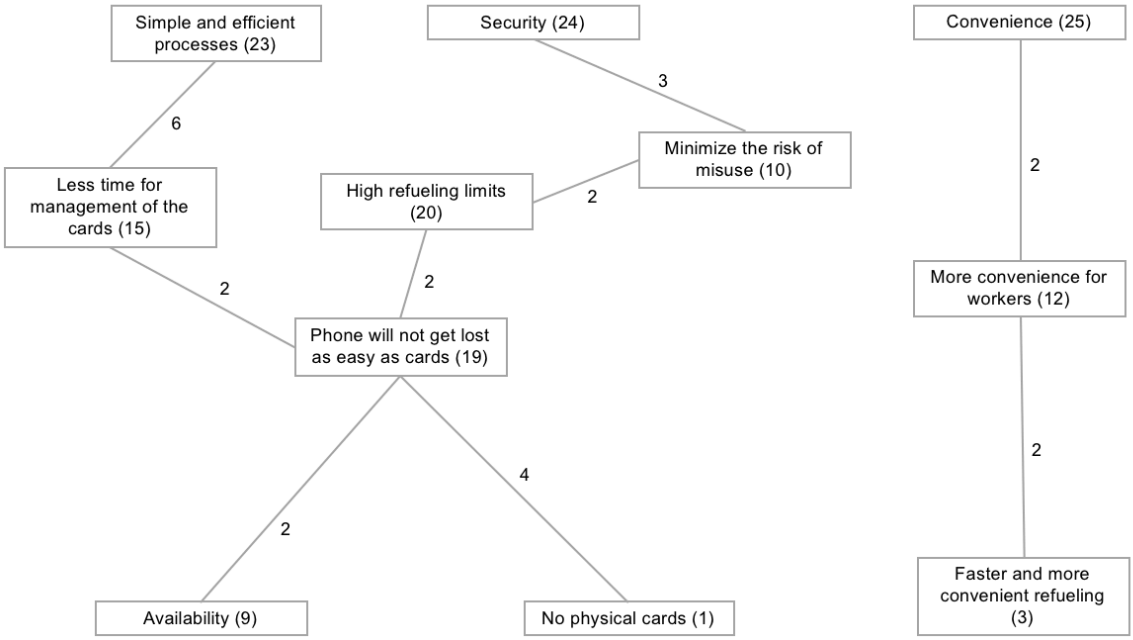

Figure 3. Hierarchical map for the mobile payment

The figure 3. illustrates hierarchical map for the mobile payment. As it can be seen, “no physical cards” – “phone will not get lost as easy as cards” – “less time for management of the cards” – “simple and efficient processes” represent the strongest chain. Thus, one of the main benefits mobile payment can bring to business customers is the more simple and efficient processes concerning the management of the cards, since when adopting the mobile payment management of the access rights will become much more effortless. This conclusion can already be made when listing attributes, consequences and goals into summary score matrix, and hierarchical map verifies it. In addition, it explains more clearly how the mobile payment leads to the benefit of simple and efficient processes and why getting rid of physical cards is perceived important. Disappearance of cards clearly appears as time consuming problem in respondents’ companies and as the mobile payment solves this problem less time for the management of the cards need to be used. As goal of “simple and efficient processes” through “less time for the management of the cards” guides business customers to use the mobile payment, key role in the development of the mobile payment need to be given for the management tools of user rights and other management functionalities. In other words, the fluency of the background system need to be guaranteed.

The second strongest chain is “no physical cards” – “phone will not get lost as easy as cards“ – “high refueling limits” – “minimize the risk of misuse” – “security”. This connection was not as clear when constructing summary score matrix. Nevertheless, it is positive to notice that the mobile payment can increase the feeling of security, and customers trust into the system, even though being novel solution. Clearly, the feeling of the security is generated from the fact that employees cannot lose the cards anymore and phone is kept safe more surely. As cards cannot be lost, also risk of misuse is minimized, which increases the feeling of security. Also, the attribute of “availability” leads to the goal of security through same consequences. As with availableness it is meant that phone is always with you, the meaning is actually very similar than with the previous chain. Nevertheless, it strengthens the fact that the mobile payment solution helps business customers to achieve better feeling of security and it is one of the central goals when adopting the solution. Thus, factors affecting to the security needs to be given high importance.

It is positive to notice that the customers appreciate the removal of the physical cards as the attribute has strong link to two benefits, both “simple and efficient processes” and “security”. Thus, one attribute leads to several goals. Bardi and Schwartz (2003) mention that in most behaviors more than one value is expressed. This can be also noted in the present study, and it can be seen that one behavior expresses multiple goals. The result signals that there is clear interest for the mobile payment solution since getting rid of the physical cards can serve several goals in organization.

Even though it has become clear that the actual mobile payment transfer or mobile refueling process is not viewed as main purpose to use the solution, still “faster and more convenient refueling” – “more convenience for workers” – “convenience” represent a strong chain. However, the links are not as strong as in other chains. A conclusion can be made, that only for certain part of the respondents the goal of convenience controls the intention to use the solution. This again may depend on the industry the company is operating and what the company is doing. For example,

one respondent explained about the rule of marking the readout before refueling and being able to do that with mobile phone would make the process much more convenient and faster for the workers. Also, in Finland's cold weather being able to perform the payment and marking of refueling information inside the car is something that brings convenience.

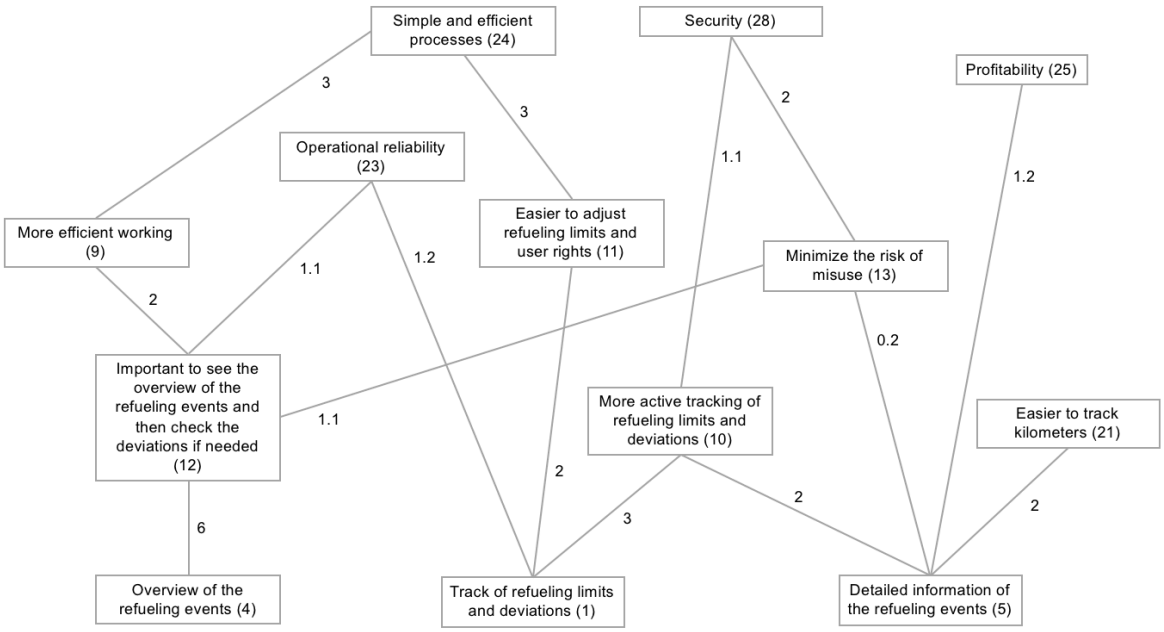

Figure 4. Hierarchical map for the background system

Figure 4. in turn, illustrates hierarchical map for the background system. "Overview of the refueling events" – "important to see the overview of the refueling limits and then check the deviations if needed" – "more efficient working" – "simple and efficient processes" represent the strongest chain. Similarly than for the mobile payment, again "simple and efficient processes" represents underlying goal for the usage. Thus, it can be realized that it is not only the removal of the physical cards and decrease of the time used for their management which leads to simple and efficient processes. Also, having quick and clear reports of the refueling limits and possibility to track deviations quickly is something that brings benefit for business customer by making process more efficient.

Another strong chain also leads to “simple and efficient processes”. The goal is linked to the attribute of “track of refueling limits and deviations” through the consequence of “easier to adjust user limits and user rights”. The attribute of “track of refueling limits” also leads to the goal of “security” through consequence of “more active tracking of refueling limits and deviations”. These chains are very similar, but while the other refers to the fast adjustment of the limits, the latter refers to more active tracking through the possibility of getting notifications when limits are reached and deviations occur or checking deviations from the reports. Thus, more active tracking brings security, whereas easier adjustment brings efficiency. Again, one attribute leads to several goals.

Moreover, “track of refueling limits and deviations” leads to goal of “operational reliability, which means that the attribute leads to three different goals. The chain of “track of refueling limits and deviations” – “operational reliability” is interesting in the sense that it has only one direct link and two indirect links. Even though it has indirect links there is not strong link to any consequence and the map do not show the consequences. Nevertheless, the chain simply explains that important goal for the use of the mobile payment system is simply ensure that the company is capable to function when refueling is guaranteed and this can be ensured better with the new system. From the result that “track of refueling limits and deviations” leads to three different goals a conclusion can be made, that attribute of “track of refueling limits and deviations” is perceived very important as it serves multiple goals. Clearly business customers appreciate the possibility of being able to follow limits and deviations more actively. Thus, in the development of the solution, high importance need to be also given for tracking and adjusting features.

Also, another chain leads to security, “detailed information of the refueling events” – “minimize the risk of misuse” – “security”. This chain concentrates to importance of having very exact information from the events which helps to track misuses, and thus increases the feeling of security. The attribute of “detailed information of the refueling events” also leads to the goal of “profitability” and the consequence of “easier to track kilometers”. Even though “easier to track kilometers” do not have any strong connection to certain goal, the information is no way disparaged. In fact,

it is the consequences that give the most valuable information, since they are more detailed than goals explaining why certain attributes are important. Goals on the other hand, explain why these consequences are seen important in the first place.

The chain of “detailed information of the refueling events” – “profitability” is again interesting, as it leads directly to goal without having any strong connection to consequence. Still, it gives part of the explanation why detailed information of the refueling events is considered important. It explains that the accurate refueling information is also important, not only for the sake of following the possible misuse situations, but to keep track of the expenses and control the profitability, which is of course generally speaking main goal of all the companies. Thus, it should be made sure that the information the background system provides is not only clear and comprehensive, but also it gathers accurate information from the refueling events, which helps companies to analyze and optimize the expenses.

When considering the hierarchical maps of the mobile payment and the background system together, it can be noted that for both “simple and efficient processes” and “security” are the most important goals. Considering the multiattribute model, in the development of the solution, it is most important to concentrate on those features that make customer’s processes more simple and efficient as well as ensure the security of the system. The attributes serving these goals are “availability”, “no physical cards”, “overview of the refueling events”, “track of the refueling limits and deviations” and “detailed information of the refueling events”. When these features function fluently, and the solution is able to meet the most important goals of the consumer it can be predicted that business customers will adopt and use the mobile payment solution. Of course, other goals with strong chains and with weaker chains should not be forgotten either. As Reynolds and Gutman (1988) mention it is also essential to pay attention to all the pathways since weaker pathways can provide significant information that can be utilized for different purposes. Nevertheless, the highest importance should be given to “simple and efficient processes” and “security” chains.

The main point raising from the hierarchical maps of the mobile payment and the background system can be concluded when considering the strongest chain from the mobile payment, “no physical cards” – “phone will not get lost as easy as cards” – “less time for management of the cards” – “simple and efficient processes”. It can be noted that already not having physical cards is seen very positive and business customers value the removal of the physical cards, and there is clear intention to adopt the solution. However, this is strongly connected to the functioning of the background system. This leads to the conclusion that the fluent functioning of the background system is the most critical in the mobile payment solution. It can be noted that it is not the actual mobile payment transaction bringing the benefit, but the whole system and process behind the mobile payment. When considering the hierarchical map of the background system, it can be noted that real benefits will be achieved when the background system is working fluently, and management of the cards is efficient as well as there are comprehensive and detailed overviews of the events and tracking of the deviations and refueling limits are easy. If these benefits are not met, the use of the solution may be under threat.

Overall when considering the findings, it can be concluded the that attitudes towards the mobile payment solution are positive and several reasons for the usage of the solution can be elicited. Thus, clear motivation to use the solution exists. Garbarino and Johnson (2001) mention that goals have strong influence in every stage of consumer’s decision-making process, from formation of attitude and processing of information, to usage of a product. Rogers (1995) again mentions that attitudes towards the innovation influence the innovation acceptance. As conclusion of these findings, it can be assumed that goals have effect on attitude towards innovation as well. Based on the assessment of the attitudes, it can be predicted that business customers have intention to adopt and use the mobile payment solution as long as it serves the elicited goals of the customers.

7 DISCUSSION AND CONCLUSIONS

In the last chapter, the key findings of the research are discussed by mirroring results to the research questions. This is followed by the discussion of theoretical contributions and practical implications. Finally, limitations of the study are analyzed and suggestions for the future research are given.

7.1 Key findings

This research revealed the underlying goals and consequences that motivate business customers to adopt the new mobile payment solution. As the previous research has stated, it is not the product or service attributes that determine the intention to use, but the consequences that product attributes cause, that customer evaluates on the basis what values or goals one holds (Woodruff 1997). Consequently, means-end theory offers a model to systematically understand the decision-making of the customers. By utilizing the means-end theory and building hierarchical representations of customers perceptions, this research has gained in-depth understanding of the Neste's business customers. More specifically, motivational view of the means-end theory was adopted in order to understand motives of business customers to use the new mobile payment solution.

To conclude the findings of the study, results are discussed in relation to research questions. The main objective of the study was to explore what motivates business customers to use the new digital solution. Thus, the sub-research questions of the study aimed to clarify what the role of goals and values are, as well as how identified goals and values are linked to product attributes. In order to answer the main research question, the two sub-questions are discussed first.

As already concluded in the previous chapter "simple and efficient processes" as well as "security" goals were mentioned the most for the mobile payment and the background system. Other strong goals elicited were "convenience", "operational reliability" and "profitability". However, other goals elicited from the interviews should not be forgotten either. Goals with weaker links were "reputation", "functionality",

“correct procedures” and “positive atmosphere”. In total nine different goals were found that motivate the use of the mobile payment solution.

Well, what is the role of these identified goals? As Gutman (1982) mentions, goals and values determine whether consequences are perceived as negative or positive. These goals listed above are the ones the mobile payment solution needs to fulfill. Consequences derived from the use of the mobile payment will be perceived as positive if they lead to the achievement of these goals. As discussed, according to the multiattribute model, the expectancy-value model and the means-end theory, customer gives stronger emphasis on those attributes which serve customer’s goals and values (Garbarino & Johnson 2001, Rosenberg 1956, Gutman 1982). Reflecting this to the findings of the present study, especially goals of “simple and efficient processes” and “security“ must be given high importance in development. The fulfillment of these goals is critical in order to ensure the usage of the solution. Moreover, the feedback-control theory emphasizes the role of goals as customer is expected to pursue and enhance the behavior that takes person towards the goal, and in the other hand, reduce the behavior which is not taking towards the desired end state. Thus, when knowing the goals that motivate business customers to use the solution it can be determined which attributes are those that are in the highest importance and encourage the usage of the solution. Consequently, the role of goals is very significant explaining business customers motivation to use the mobile payment solution and giving valuable information for the development of the solution.

Hierarchical map represents a great tool for discovering the most important goals and derive deeper understanding of the customer. Even though laddering is not often used in organizational context it appears to be functional tool to discover underlying goals of business customers. The highest level of abstraction may not be as deep as when comparing conducting of laddering for consumers, but specific abstract goals can be probed from business customers as well. Also, other studies applying means-end model in organizational context have been able to reach the highest level of abstraction (Skytte & Bove, 2004, Jamshidi & Sepehri 2007, Henneberg et al. 2015).

The second sub-question, how identified goals and values are linked to product attributes, can be answered by taking closer look into elicited chains. From the hierarchical maps certain paths can be identified. As it has been realized earlier, some paths are more important than the others as they have stronger links. The strongest paths lead to “simple and efficient processes” and “security” goals. Additional strong paths are convenience, profitability, operational reliability chains. Paths with weaker links are reputation, functionality, correct procedures, positive atmosphere chains. In the following, the two strongest paths are discussed more in detail while other paths are discussed briefly.

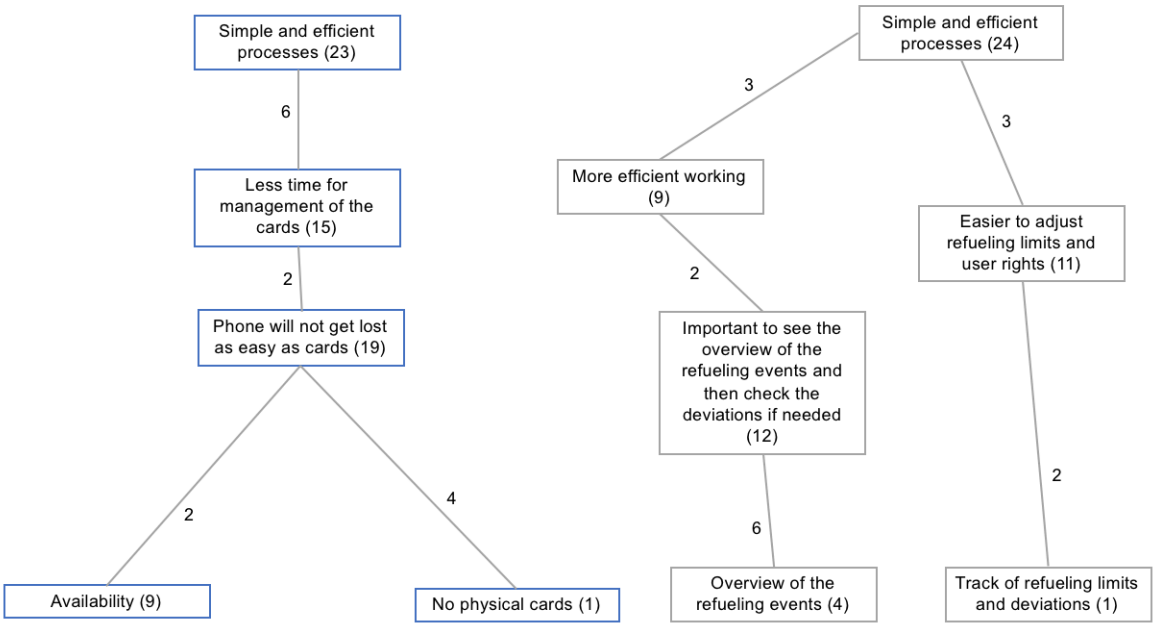

Figure 5. Simple and efficient processes paths

Figure 5. illustrates simple and efficient processes paths for both the mobile payment and its background system. Paths relating to the actual mobile payment are in blue boxes, while paths relating to the background system are in grey boxes. Here it can be seen that the goal of “simple and efficient processes” is linked to attributes of “availability”, “no physical cards”, “overview of the refueling events”, “track of the refueling limits and deviations” through different consequences. It can be clearly seen that when there is no physical cards time will be saved as workers

cannot lose them so easy and management of user rights is more effortless. Already this presents a relevant reason for business customers to adopt the mobile payment solution. As companies may have even hundreds of cards and constantly changes in workforce, the management of cards takes several hours. More benefits will be achieved through the background system if it offers a comprehensive overview of the refueling events from which also deviations can be seen easy and if it helps to track refueling limits and deviations more efficiently by giving notifications and possibility to adjust user rights easily. These chains represent ones that highest importance must be given in the development. If there are problems with these attributes resulting more simple and efficient processes in business customers organizations, the use of the mobile payment solution will be under serious threat.

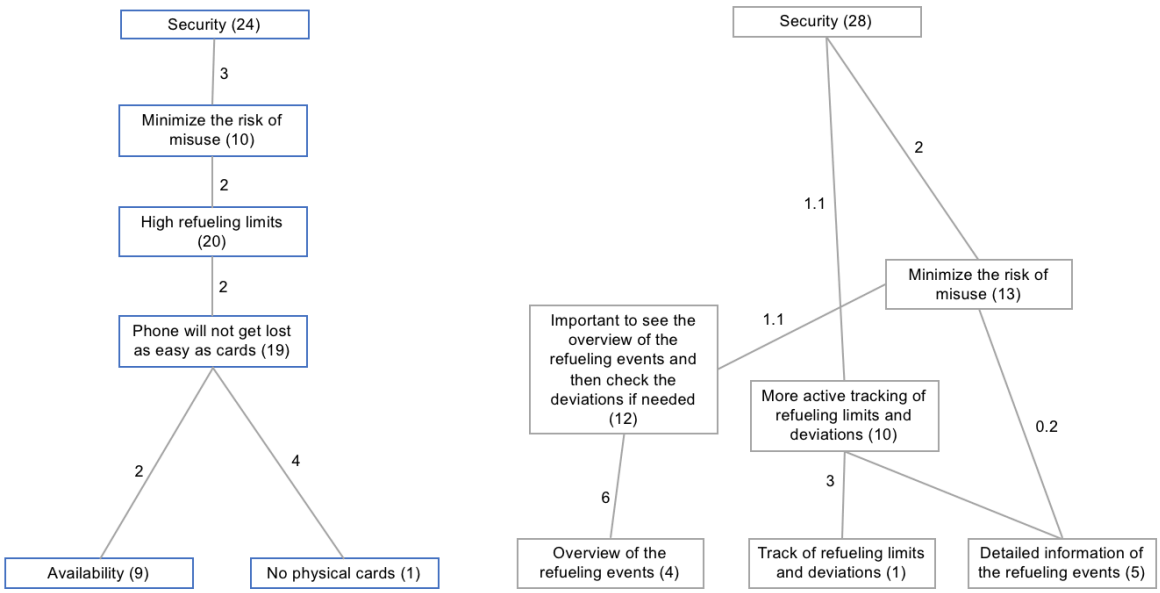

Figure 6. Security paths

Figure 6. in turn describes paths leading to the goal of “security”. Again, blue boxes illustrate the actual mobile payment chains, whereas grey boxes illustrate the background system chains. The goal of “security” is linked to attributes of “availability”, “no physical cards”, “overview of the refueling events”, “track of refueling limits and deviations” and “detailed information of the refueling events”. Almost the same attributes lead to the goal of security as to goal of simple and

efficient processes. Thus, by concentrating to careful development of these attributes the most essential goals of the business customers can be fulfilled.

The removal of physical cards can already enhance the feeling of security when the chance of losing the phone is smaller than losing the cards, which clearly is problem in many companies interviewed. The cards generally have high refueling limits which may result large losses if it ends up to wrong hands. It is positive to notice that abandonment of cards is perceived as more secure. In addition to workers losing the cards, also misuse of the cards by workers represent a problem in almost every company interviewed. In some companies it is a larger problem, while in others it is not critical problem, but some mistrust has occurred. The attributes that help to track deviations and refueling limits more actively increase the feeling of security, and thus high emphasis in development need to be given for these. More data the companies can gather from the refueling events more actively they can track the misuse situations and more secure feeling can be achieved. As a conclusion, security goal will be achieved when the mobile payment solution solves the problem of losing cards and gathers more detailed information of the refueling event which helps to track possible misuse situations. As security represents important goal for business customers, security issues need to be considered very carefully. The information security is in critical part when the payment issues are in question.

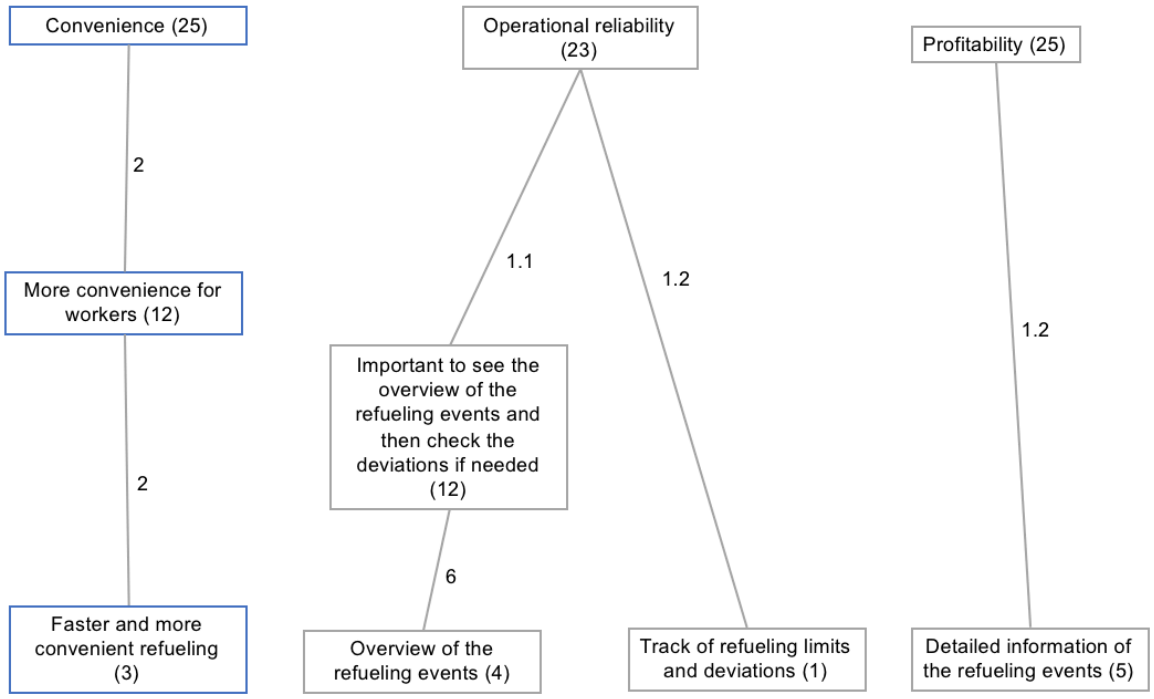

Figure 7. Convenience, operational reliability and profitability paths

Figure 7. illustrates additional strong paths which are convenience, profitability and operational reliability chains. These are all included in the hierarchical map, but the connections are not as strong as “simple and efficient processes” and “security” goals have. It is important to remember also these paths as they deepen the understanding of the customers and give relevant information. These paths may not be relevant to all the customers, but in certain business areas these attributes are appreciated. Even though simple and efficient processes as well as security are given the most importance, the mobile payment can also bring convenience for workers, help to guarantee the operational reliability of the company as the access to refuel may be critical for the functioning of the company. Moreover, the mobile payment solution can be tool for controlling the profitability.

Rest of the paths elicited were only mentioned by single respondent, which is why they were not included in the hierarchical map. Paths leading to goals of “reputation”, “functionality”, “correct procedures” and “positive atmosphere” had weak links. However, it is again valuable information from the customers and it should not be underrated. These goals were linked to attributes that are already

mentioned earlier. For example, “correct procedures” was linked to attributes of “detailed information of the refueling events”, through the consequence of “more active tracking of refueling limits and deviations”. It can be realized that some respondent’s attributes can have links to same consequences than other respondent, but the underlying goal why certain consequence is perceived important may differ.

However, also some ladders were elicited that no one else than one respondent mentioned. For example, “fluent onboarding process” – “frustration if too many problems” – “functionality” was mentioned only by one respondent. This ladder is interesting in the sense that it includes undesired consequence. Also, the ladder of “pin codes” – “fear that employee sets too easy pin code” - “fear of misuse” – “security” includes undesired consequences. Undesired consequences are interesting since not many laddering studies have discussed or found them, whether it was consumer or business to business laddering study in question. By revealing negative consequences valuable information can be gathered what are for example the fears of the customers concerning the solution and what should be avoided. Thus, it can be realized what for example need to be fixed in order to guarantee the use of the of the solution.

When considering the consequences found from this study, the effect of different actors/individuals can be also detected. This was of course anticipated finding, since in organizational context decision cannot be made based on individual references as mentioned by Webster and Wind (1972). In other business to business laddering studies this area is not discussed either. In the present study, the researched mobile payment solution is an issue that affects to many actors in organization. Hence, the findings show how different attributes can have effect on different actors. For example, Skytte and Bove (2004) concentrate only on retail buyers and the value they seek. Of course, the impact of different actors in organizations might be present in their study too but in the elicited consequences it cannot be seen so clearly.

Finally, as two sub-questions are discussed, also the main research question “What motivates business customer to use new digital solution?” can be answered. As conclusion, the most important underlying reason for the usage of the new mobile

payment solution is to achieve more simple and efficient processes inside the company as well as increase feeling of the security. These goals will be already achieved by replacing physical cards with the mobile payment application. However, the achievement of these goals depends on the functioning of the background system. For example, it is critical that the background system functions fluently and allows users to adjust user rights easily and track refueling limits and deviations, as well as that it provides comprehensive and accurate reports from the refueling events. If these are functioning fluently, it can be predicted that the intention to use the mobile payment solution is strong. Already removal of the physical cards motivates customers, but the real benefits will be achieved through fluent functioning of the background system. Following the rules of the multiattribute model, the expectancy-value model and the means-end theory, the overall satisfaction of the customers is highly dependent about the fulfillment of the simple and efficient processes and security goals. Thus, the simple and efficient processes as well as security chains are central in determining the business customers motivation to use the mobile payment solution. These motivations can be seen to be relevant regardless of the industry or at least in the most of the Neste's business customer segments.

Additional motives for the usage of the mobile payment are more convenient refueling process, verification of operational reliability as well as profitability goals. These motives may not be applicable to all industries, but it gives valuable information from the customers and what is important in the mobile payment solution. In some industries also reputation, functionality, correct procedures and positive atmosphere are seen as reason to use the solution.

7.2 Theoretical contributions

This study is special in the sense that the context is quite unique. The context was in business to business customers' new technology adoption, where in-depth understanding of the customers was derived by using the means-end approach. Not exactly similar studies have been conducted earlier. This had both positive and negative effects on the study. On the other hand, it was quite difficult to determine

the proper literature, but on the other hand, this study has brought new perspectives to the literature.

Firstly, this study has increased knowledge on using the means-end approach in business to business context. Only few studies have been done where the means-end approach and laddering have been used in business to business context. Thus, the present study adds valuable knowledge in the area. This study was able to derive understanding of business customers decision-making process and underlying motivations by using laddering. Thus, the study strengthens the fact that laddering is very functional tool also in business to business context. Similarly as in consumer laddering studies, also in business to business laddering studies attributes, consequences and values or goals can be identified.

As Gutman (1982) states in the most general formulation the means-end chain construes from the sequence of attributes, consequences and values. However, also four-level and six-level model exist, from which the four-level model is the most applied (Reynolds & Olson 2001). In the present study the three-level model was applied, as noted that only functional consequences were elicited, and no psychosocial consequences were mentioned. Thus, this study contributes to state that only three-level model is necessary in business to business laddering researches. Also, other business to business laddering studies have applied three level-model (e.g. Skytte & Bove, 2004, Jamshidi & Sepehri 2007, Henneberg et al. 2015). As mentioned earlier, because of the very rational nature of the organizational decision-making it might be difficult to find psychosocial consequences.

This study has also increased knowledge of what type of goals can be identified from business customers, and is it in the first place relevant to study underlying goals and values of business customers. Some similar type of goals or values can be identified from previous B2B laddering studies as derived in this study. For example, Skytte and Bove (2004) found values such as sales, profit, job security, strategy, shareholders, investments, quality image, success and job satisfaction. Even though the context of Skytte and Bove's study was in retailer value of the pork

and fish products very similar type of goals can be found. Jamshidi and Sepehri (2007) identified values of cost, time, trust and independency. The context of the study is very close to the context of this present study as they examined the usability of B2B websites. It can be noted that all the identified values with the exception of independency can be found from the present study. Henneberg et al. (2015) found values of achievement, maintain customer relationship, maintain supplier relationship, network effects and reputation benefits. Some similarities occur between values identified by Henneberg et al. (2015) and the present study. Values that are identified in both studies are achievement and reputation.

It can be noted that laddering leads to certain type of values or goals when done in organizational context. These goals and values are very general targets that any commercial company pursues such as profitability, sales and efficiency. The goals identified in this study and other business to business laddering studies follow the England's (1967) classification of organizational goals to large extent. Findings of the present study and earlier business to business studies indicate that laddering works properly in organizational context as well. Similarly as in consumer studies that are utilizing laddering, organizational laddering studies lead to certain set of abstract values or goals which explain the decision making and motivation behind the behavior. It can be seen that these values and goals identified in business to business studies are much more power-oriented and money-related of course.

This study has also raised question that should business customers highest level of abstraction understood as goals or values. In the beginning of the study it was unclear which term is more appropriate. When the study proceeded, it was realized that goals and values can be understood very similarly but in organizational context the highest level of abstraction may not be as deep as when comparing to conducting of laddering for consumers. Thus, in this study highest level was understood as goal as it turned out to be more appropriate term. In addition, when it was noted that goals elicited in this study followed England's (1967) classification of organizational goals the use of the term goal was verified. Moreover, as several researchers understand work values synonymously to goals and they can be

perceived as goals in work setting the term goal was chosen (e.g. Schwartz 1992, French & Kahn 1962, Zedeck 1997, Locke 1976).

However, conflict exist between this study and previous business to business laddering studies as previous studies have used the term values. As discussed Skytte and Bove (2004), Jamshidi and Sepehri (2007) and Henneberg et al. (2015) have elicited very similar type of values or goals as found in this study. Thus, probably values these scholars have found could be also understood as goals. This leaves an open question which term is more appropriate. Considering the literature on values and goals no unambiguous answer can be found. Some researchers believe that goals are not as abstract as values and they are lower in the hierarchical structure. For example, Kilmann (1981) and Schwartz (2006) have mentioned that values guide to what goal individual is motivated to focus on, and thus values are higher in the hierarchical structure. Then again, Rokeach (1973) believes that terminal values, which refer to preferred end-states, are understood as goals, and instrumental values are lower level values which reflect means as ways of behaving to reach the goals. It should be also noted that originally Gutman (1982) has defined levels of abstraction as attributes, consequences and values, and it might be that some researcher may not have wanted to change the term of the highest level. However, in the first place, it should be remembered that Gutman (1982) has developed the means-end theory to be used in the consumer studies, while in business to business context the highest level of abstraction may not be as deep as in consumer context. Thus, the present study contributes to pursue the use of the term goal rather than the term values.

This study has also strengthened the value-oriented perspective in technology adoption research and usage of means-end chain approach in technology adoption behavior context. As discussed, general orientation to new product and technology acceptance is influenced by values, and knowledge of cognitive structures represents a strong theoretical base to understand and explain for example new product or technology acceptance (Steenkamp et al. 1999, Burgess 1992, Smith and Schwartz 1997). Even though technology adoption is not discussed very deeply, the present study makes small contribution in this area as well. The means-

end approach allowed to study motivations of the business customers without making any presumptions and allowed to understand intention to accept the new mobile payment solution by gaining comprehensive understanding of the customers. Moreover, this study contributes not only to identify different values or goals motivating technology use in organizational context but also to understand relationships among goals and understand hierarchical structures.

When considering studies which context is in the development of technological solution much fewer similar values and goals can be identified. For example, Abeele and Zaman (2012) identified values such as fun, Abeele and Zaman (2009) values such as social and be the best, as well as Subramony (2002) identified values such as satisfaction, happiness, relaxation and emotional security. It should be noted that the studies discussed concentrate to consumers rather than business customers, which explains the difference of identified values or goals. Thus, it can be concluded that even though the topic of the study is similar, the context and object of the study, more specifically the respondents, determine the type of the elicited goals.

As mentioned the context of this study was quite unique. The study was able to explore new digital solution that has not been even launched yet and apply the means-end approach in new product development context. Laddering have probably been most popular in gaining information for promotional strategy purposes. However, this study contributed to understand how laddering works in new product development context. The study provided useful information for the product development. The results can be utilized in order to understand which areas are the most important in the product development and what truly brings value for customers. However very specific information for example about exact product features and what should be done with them was more difficult to derive. The findings of this study concerning new product development are in line with Bagozzi and Lee (1999) and Bagozzi and Dholakia (1999). They note that by exploring cognitive structures, better understanding of the customer can be gathered, and thus needs of customer can be better met. This study verifies that it is effective approach in business to business context as well.

This study also slightly contributes to organizational innovation literature. Even though not any major contributions are done, this study at least increases knowledge what goals direct the use of mobile payment solutions in organization. The goals elicited in this study may be applicable in other innovations as well and they increase the understanding of what motivates the adoption of new innovation in organization.

In the means-end approach either cognitive structure view or motivational view can be enhanced (Grunert & Grunert 1995). This study has emphasized more motivational view, even though also cognitive structures are discussed. Nevertheless, because the object of the study was to understand underlying motivations and the highest level of abstraction was understood as goals motivational view was emphasized more. As Guenzi and Panzeri (2015) also mention, the motivational view is particularly suitable when examining organizational behaviors. Consequently, this study has contributed to discussion of the motivational view in the means-end approach.

7.3 Practical implications

Using the means-end approach this study has produced in-depth knowledge from the Neste's business customers motivation to use the new mobile payment solution. The laddering technique has proved to be useful tool for understanding business customers. The object of the study was to gain deeper knowledge from the customers and their behavior, as well as validate the research of Neste's and external research organization of the mobile payment solution in order to develop even better solution that fulfills the goals of the customers.

Woodruff (1997) states that organizations have a habit to learn most about the customers only at the attribute level which may result a partial and shallow understanding of consumer and missing of the knowledge. This may result mistakes in organization's efforts and be costly. Moreover, Parasuraman et al. (1985) as well as Sharma and Lambert (1994) mention that managers often evaluate wrongly what their customers value. Thus, it is essential to learn and understand customers'

needs and motivations more deeply. Especially, in the area of new product development in-depth understanding of the customer is emphasized as customers have challenges to assess the new product, which is why more appropriate approach is to try to examine the cognitive structures and motivation of the customers comprehensively. (Bagozzi and Lee 1999, Bagozzi & Dholakia 1999)

The results of the study indicate that especially the possibility to have more simple and efficient processes and increase the feeling of security motivate Neste's business customers to use the mobile payment solution. These goals will be achieved when less time for the management of cards is needed. However, the real benefits will be achieved when the adjustment of the user rights is easy and quick, as well as if it allows to track refueling limits and deviations, and it provides comprehensive and accurate reports from the refueling events. It can be concluded that it is not the actual mobile payment that brings the benefits, rather it is the processes that mobile payment can make faster, more efficient and more secure.

The results help Neste's development team to concentrate on the most relevant features and direct the resources on the right issues. As more simple and efficient processes and security represent the strongest chains, in the development the highest importance need to be given to features serving these goals. The results indicate that it is very beneficial to elicit the most important chains through hierarchical maps and help to focus the development. Furthermore, laddering as a tool is useful, as it does not make any presumptions and it allows customers to express their hopes and most important things that motivate the usage without anyone being able to influence their answers. Thus, it can be assured that the customers are truly listened in the development.

Features that the highest importance need to be given, are possibility to get notifications when preset refueling limits are reached or deviations in the refueling occur such as refueling outside the allowed time or location. Also, Neste's business customers appreciate the detailed information of the refueling events which includes for example insight of the driven kilometers, time, location, price and amount of refueling from every user. Also, this information need to be clearly visualized in

comprehensive reports, where insight can be gained quickly, and possible deviations can be tracked immediately. If the mobile payment solution fails to meet the goals of more simple and efficient processes and security, intention to use the solution may be under serious threat.

Also, other goals were elicited that motivate the business customers to use the mobile payment solution. These were convenience, operational reliability, profitability, reputation, functionality, correct procedures and positive atmosphere Even though the chains leading to these goals were not as strong they give valuable information from the customers. These goals may not be relevant in all industries, but some companies may see them as relevant.

Moreover, negative consequences should be taken into consideration. Even though chains including negative consequences are not presented in hierarchical maps, they are important as they indicate what should be avoided at all cost. For example, identification of private and corporate side clearly raised concern among respondents. The mobile app includes both private and corporate side and it was mentioned that their difference was not clear enough indicated in the app. Thus, this is one issue that need to be resolved because this can decrease the intention to use the solution.

In addition to implications derived for the development of the solution, the results offer valuable information for the sales and marketing purposes. As the original purpose of the means-end approach is to understand decision-making process of the customers and offer information for example to promotional strategy and segmentation purposes, it was of course predictable that this type of beneficial information would be provided from the results. Firstly, the results provide support for the creation of marketing message that addresses the target group effectively. This is very beneficial knowledge when the B2B mobile payment application is launched and marketing begins. It is clear that in marketing materials benefits of simple and efficient processes and increase in security need to be communicated for the customers regardless of the segment. Furthermore, it is important to

communicate the consequences that result these benefits, such as less time for the management of the cards and minimization of the misuse situations.

Basically, all the chains included in the hierarchical maps provide valuable information for the marketing and several benefits and selling arguments can be elicited. As Neste already does segment-based marketing, results also provide information how certain segments see the mobile payment solution and what motivates them to use the solution. Thus, the right messages can be targeted to right segments. Different chains in hierarchical maps indicate the benefits construct differently and for some customers different issues may be important. Also, salesforce benefit from the results of this study. As the solution is novel, not even many employees at Neste are aware of the benefits the mobile payment solution brings to business customers. This study helps to gather relevant points and communicate these also to the employees. Salesforce can gain in-depth insight from the benefits the business customers seek from the solution. Thus, right selling arguments can be created, which motivate the business customers to adopt the solution. Furthermore, as the study has gathered lot of data from the customers motivations, the salespeople have possibility to use very accurate and detailed arguments which can impress the customers.

By applying the knowledge derived from this study, Neste can increase customers' engagement towards the mobile payment solution and create the solution that meets the needs of the business customers better. As understanding customer deeper than just attribute level, there is better chance to achieve competitive advantage. At the moment, the mobile payment is popular at the market and all the competitors already offer mobile payment possibilities for consumers. However, Neste is among the first ones to offer the mobile payment solution for business customers, and when needs of the customers and benefits they seek are understood deeply, there is clear vantage to competitors. This study validates the findings of the research Neste is conducting and gives stronger base for the development of the solution in order to meet the customer needs.

The results may also be useful for the other companies than just Neste. As mentioned, mobile payment is now popular and other companies developing mobile payment solution for business customers can have valuable insight from the results too. The results indicate that the actual mobile payment will not bring the most of benefits, rather it is processes that the mobile payment solution helps to streamline. The possibility to get rid of the physical cards motivates business customer to adopt mobile payment, but in the end fluent functioning of the possible background system is what counts.

7.4 Limitations and future research

Certain limitations exist in the research. Firstly, the number of respondents is relatively small, which may have affected to the theoretical saturation. However, generally in business to business studies the number of respondents is smaller than in consumer studies. Still, other business to business laddering studies have had larger respondent amount varying from 10 to 80 (Skytte & Bove 2004, Jamshidi & Sepehri 2007, Henneberg et al. 2015). However, considering the time and resources available for the conducting of the study, larger group of respondents would have not been possible. Nevertheless, when analyzing the results, it was noted not much new information was derived from the last interview, which is positive sign regarding the theoretical saturation.

Other limitation of the study concerns the generalizability of the results. The research subject is very specific as the respondents are business customers of Neste and their motivation towards the specific mobile payment solution is explored. Results gathered from this sample cannot be generalized to all business customers and to different mobile payment systems. However, in the first place, objective was to gather valuable information for Neste and the generalizability of results to other firms' customers was not the goal.

Third, limitation of the study relates to the skills of the researcher regarding the laddering technique. Reynolds and Gutman (1988) propose that laddering is conducted by experienced researcher, but unfortunately researcher had no previous

experience from the laddering which may have influenced to the validity of the research. However, in the present study all the instructions of the laddering were strictly followed, and analysis was done very carefully in order to minimize the possible mistakes. Reynolds and Gutman (1988) also recommend that summary codes should be evaluated by several researchers. However, this was not possible again because of the resources. Thus, this may have influenced the validity. Moreover, the lack of experience may be detected in the construction of the hierarchical maps. In the hierarchical map of the background system few elements are unfortunately crossing lines, even though it should be avoided at all cost. A lot of effort was put to solve the problem but, in the end, it seemed that avoidance of crossing lines was impossible. Thus, this may affect the interpretability of the map.

Final limitation identified is concerned with observer bias. As the research method was interview, the results may have been under the influence of observer bias. As Saunders et al. (2009, 297) mention, researcher is always part of the world one is studying and detaching one from it is not possible. Thus, researcher always has one's own interpretations and perceptions, and best that can be done is to be aware of threat it presents. As being aware of the threat, it has been tried to assure that the analysis of the data and the construction of the hierarchical maps reflect exactly respondents' cognitive structures and processes, rather than researcher's cognitive structures and processes. Grunert and Grunert (1995) also emphasize the importance of this in order to minimize the bias.

This study has disclosed a few possible future research areas. Potential further research could concentrate to gather bigger sample of the Neste's mobile payment solution users and explore if same goals could be elicited. For example, hard laddering method could be utilized to be able to collect responses more effectively. This type of research would validate the present research. Furthermore, this same study could be conducted for example one year later when the mobile payment solution is launched and in active use. In the present study answers reflect more hopes and reasons for the usage since the interviewed customers did not have experience from the solution. Whereas, if the interviewed customers would have had experience from the solution, maybe more accurate information of the needs

could have been gathered and more concrete development recommendation could have been given. Overall, in the further research it should be taken into consideration if the laddering method proposed by Pieters et al (1995) would be more appropriate for the research setting, and thus goal structures would be emphasized more. Moreover, something to consider in future research is better knowledge and understanding of the interviewed firms and their processes in advance. It would be interesting to see if the results had been even more in-depth and concrete if having even better understanding of the firms in advance. Finally, possible future research area that this study has disclosed, is the discussion about the values and goals and their similarities and differences, as well as can they be understood as equal level of the hierarchy or as separate levels of the hierarchy.

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APPENDICES

Appendix 1. Summary score matrix for the mobile payment

Individual respondent	Attributes	Consequences	Consequences	Consequences	Goals
A1	A1	C19			G23
A2	A1	C11			G23
A3	A1	C10			G24
A4	A2	C11			G25
A5	A3	C12			G25
A6	A3	C12			G23
B1	A4	C13			G27
B2	A5	C18			G24
B3	A6	C16			G26
B4	A7	C14			G27
C1	A1	C15			G23
C2	A1	C15			G23
C3	A1	C19			G24
C4	A1	C10			G24
C5	A8	C12			G25
C6	A8	C15			G28
C7	A2	C17	C18		G24
D1	A1	C15			G23
D2	A1	C15			G23
E1	A9	C19	C20	C10	G28
E2	A9	C19	C20	C10	G24
E3	A1	C19	C15		G23
E4	A1	C21			G23
E5	A1	C22			G24
E6	A1	C19	C15		G23

Appendix 2. Summary score matrix for the background system

Individual respondent	Attributes	Consequences	Consequences	Consequences	Goals
A1	A1	C9			V24
A2	A1	C10			V23
A3	A1	C11			V24
A4	A1	C11			V23
B1	A3	C17			
B2	A4	C12			V24
B3	A4	C12			V23
B4	A4	C12			V24
B5	A5				V25
B6	A6	C13			V25
B7	A2	C16			V24
C1	A4	C12	C9		V24
C2	A4	C11			V24
C3	A1				V23
C4	A4	C9			V24
C5	A4	C14			V24
C6	A5	C10			V26
D1	A4	C12	C9	C13	V23
D2	A4	C12	C10	C15	V27
E1	A7	C18	C12	C13	V26
E2	A5	C20			V25
E3	A5	C21			V24
E4	A5	C21	C22		V25
E5	A8	C11			V24
E6	A5	C19	C13		V28
E7	A5	C10	C13		V28
E8	A1	C10			V28
E9	A1	C10			V24

Appendix 3. Implication matrix for the mobile payment

	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	2	1				4.1				4		1	1	0.9	0.4					
2		1						1	0.1						0.1	0.1				
3			2											0.1		0.1				
4				1														0.1		
5									1						0.1					
6							1										0.1			
7					1													0.1		
8			1			1										0.1			0.1	
9	0.2									2	0.2								0.1	
10															3				1	
11														1		1				
12														1		2				
13																		1		
14																		1		
15														6					1	
16																	1			
17									1						0.1					
18									1						1					
19	0.2					2					2			1.2	1.1				0.1	
20	2														0.1				0.1	
21														1						
22															1					
23																				
24																				
25																				
26																				
27																				
28																				
29																				

Appendix 4. Implication matrix for the background system

	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	1	3	2												1.2	0.3				0.1
2								1								0.1				
3									1											
4	1.2	0.1	1	6	0.1		0.1								0.2	0.6			0.1	
5		2			0.2						1	1	2	0.1		0.1	1.2	0.1		0.2
6					1												0.1			
7				0.1	0.1					1								0.1		
8			1													0.1				
9					1										0.1	3				
10					1		1								1	1		1	0.1	1.1
11															1	3				
12	2	1			1.1										1.1	2.1		0.1	0.1	
13															1		1	1		2
14																1				
15																			1	
16																1				
17																				
18				1	0.1													0.1		
19					1															0.1
20																	1			
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