

Expected, realized and potential value in a new service setting

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Abstract

This study explores customer perceived value in the context of new technology intensive services, mobile advertising services in particular. In contrast to the existing static view on value, the paper argues for a dynamic view on value as a multi-dimensional and a time-sensitive perception with past, present and future dimensions. Moreover, certain benefits do not always increase value and sacrifices do not always decrease value. The study draws on interview data from 17 retailers who have used a novel m-advertising service system. As a result an empirically grounded model of customer perceived value in mobile advertising services is presented with emphasis on the role of time and the multidimensional co-creation of value.

Keywords: customer perceived value, time, mobile advertising

Acknowledgements: The financial support of the National Technology Agency of Finland is gratefully acknowledged. The authors wish to thank the organizations whose invaluable collaboration has made this work possible.

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Introduction

This paper explores value creation in a new service setting for two main reasons. Firstly, although the concepts of value and value creation have been one of the key areas of interest in the current research on business relations (e.g. Anderson and Narus 1999; Blankenburg Holm et al. 1999; Helander et al. 2002) existing theoretical knowledge is still fragmented and in its infancy (see Ulaga 2003). Value creation is considered as a phenomenon that is difficult to grasp, conceptualise, and model. Secondly, recent research efforts have been directed towards conceptualising value in manufacturer-supplier relationships (e.g. Ulaga 2003; Walter and Ritter 2003). Although examinations of consumer perceived value have taken place for years (e.g. Bolton and Drew 1991; Liljander and Strandvik 1993; Zeithaml 1988) less has been done in b-to-b setting. Nevertheless, the topic has been regarded highly relevant also in professional service relationships (see Hirvonen and Helander 2001; Lapiere 1997; Leino 2004).

We have chosen to examine value creation in the specific context of new technology intensive services because technological development is one of the most important forces changing the value creation in services. In addition to the increasing outsourcing and networking in industrial markets, information technology continues to open up areas for new kinds of services. One such is mobile advertising that Varshney and Vetter (2002) see as one of the most promising potential business areas. Mobile advertising refers to ads sent to and presented on mobile devices, and it enables sending unique, personalized and customized ads as well as engaging customers to real-time discussions and transactions with the advertiser (Salo and Tähtinen 2005). However, the value system is only in a state of emergence (see Möller and Svahn 2003) because the services are still under development and both the customers and the service providers are unsure about how to best create value together.

The existing research often approaches value as a static concept (e.g. Liu et al. 2005; Ulaga 2003) and as the difference between gains and sacrifices (e.g. de Chernatory, Harris and Dall'Olmo Riley 2000; Walter et al. 2001; Ulaga 2003). With the help of the specific empirical context, this study distances itself from the above-mentioned view on two dimensions. Firstly, it argues for a dynamic view on customer perceived value as a multi-dimensional and a time-sensitive concept that has past, present and future dimensions (see also Woodall 2003). In intangible services in general, and in new technology intensive services in particular, value creation takes different forms before the service consumption, during it and afterwards. Secondly, this study argues that in these kind of services the relation between benefits and sacrifices is not straightforward. Value in service setting is strongly dependent on the resources the actor itself invests in the value co-creation process (see also Komulainen et al. 2004). Investing some type of resources (i.e. making more sacrifices) can increase the benefits more than the increase in sacrifices will be. On the other hand, if the actor tries to minimize its investments, the benefits may not even exceed the sacrifices. The underlying logic comes from the co-production of services, where the customer is always a co-producer and thus cannot receive any value unless it takes part in the service production (e.g. Goodwin 1990; Larson & Bowen 1989; Manolis et al. 2001).

The objective of the present study is to explore customer perceived value in a new service setting by emphasizing the dynamic view on value creation. The aim is to classify the value perceived by the customers of a mobile advertising service provider. Especially, the study aims at conceptualizing value as a dynamic concept, in other words taking into account time dimension as well as the interconnections of the sacrifices and benefits while co-producing the service. In doing this, the study extends the research on value for the customer (see Woodall 2003) to the context of new services. The context brings up two new viewpoints to the discussion; the future time dimension and the complex interaction of the value elements.

This research is part of a large multi-disciplinary research project developing and testing new mobile technology and services in a real end user environment (for further details see Ojala et al. 2003). Empirical data for the examination of value creation in mobile advertising consists of interviews of 17 retailers that tested a new mobile service. As an outcome of the analysis of the data, an empirically grounded classification of the dynamic value elements (i.e. benefits and sacrifices) in mobile advertising service is presented and discussed. The role of time in value creation and the value creation as a joint process is emphasized in the classification.

The study is structured in the following manner. Firstly, existing body of knowledge on value creation is discussed taking into account the specific features of mobile advertising service. Secondly, the research design and the empirical data are described. Thirdly, the results of the data analysis are presented as an empirically grounded classification of value elements. The paper concludes with avenues for future research focusing on value for the customer in new technology intensive services.

Value creation in new services

Context of the study

This study explores customer perceived value in mobile advertising (m-advertising) service since it is a current example of the new and future oriented technology intensive service. M-advertising is radically different from traditional advertising (see e.g. Choi et al. 1997; Tähtinen and Salo 2004), but the difference is not solely related to the new technology as such. The difference lies in what the new technology enables to do differently. Traditional advertising is primarily targeted at mass audiences, and relies predominantly on one-way mass communication. M-advertising can be, at a low cost, tailored to individual customers, because it efficiently identifies the receiver of the message, i.e. the user of the mobile device. Therefore, m-advertising is personal interaction with individuals, making it a unique form of advertising.

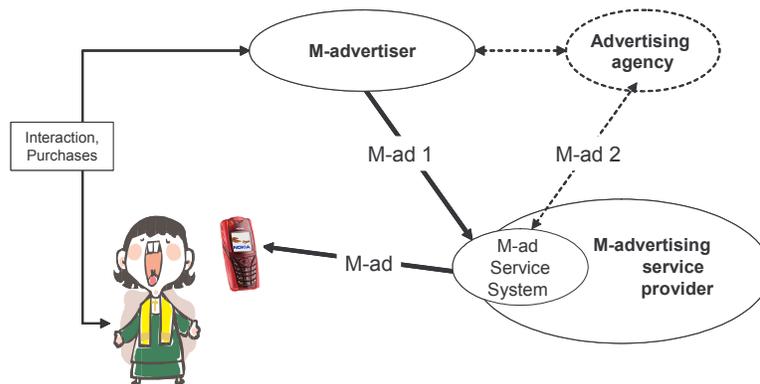


Figure 1. The main actors in mobile advertising

The differences that new technology brings in relate to the compatibility of the infrastructure and the mobile devices. Therefore, a functioning m-advertising service requires co-operation and interaction of many such actors (e.g. infrastructure providers, network operators, application providers, device manufacturers, m-advertising service providers, m-advertisers and advertising agencies) that otherwise do not co-operate with each other in advertising business (Komulainen et al. 2005). Figure 1 shows the route the m-ad travels from the content provider interface used by an advertiser (M-ad 1) or an advertising agency (M-ad 2) to the receiver's mobile phone.

Figure 2 provides a closer look at the mobile ad service system, in the focal case titled as SmartRotuaari. The users of the system are in the left; an administration / the service provider, the advertiser / the retailer, and the end user / the receiver of the m-ads. The service provider manages each m-advertisers' accounts, i.e. adds new advertisers, deletes the ones that wish to end their contract etc. The m-advertisers or their ad agencies create the m-ads and manage their sending via web pages secured by account names and passwords. The m-adverts may include text, images, animations, video and audio, and they can be targeted to specific end users by means of sending criteria (e.g. receiver's preferred age, gender, interests, patronage, and customer location). In addition the duration of the campaign and the sending hours per day are set by the m-advertisers or their ad agencies. The advertising tool also allows the advertisers to keep track of the number of times that any given advertisement has been sent to service users. The technology applied enabled sending SMS, MMS, and Wap Push m-ads directly to target consumers' mobile phones.

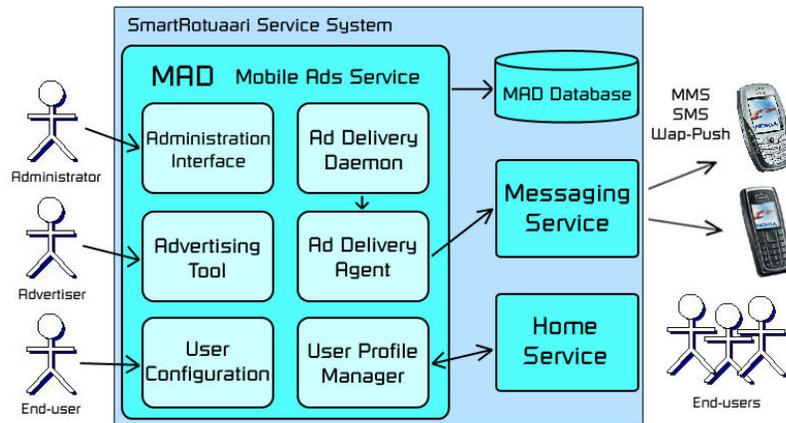


Figure 2. SmartRotuaari Service System and its components

Each person wishing to receive mobile ads fills in information about her/his interest areas to her/his user profile through end user interface titled Home Service. The Home Service web pages can be accessed via mobile phones or PCs, but each user is able to change only her/his own information. User Profile Manager keeps the end-users' profile information up-to-date in MAD database. The database also stores all m-ads and advertiser account settings. Ad Delivery Daemon searches m-ads that match the user's interests, age, gender etc. and sends them to the delivery queue processed by Ad Delivery Agent. Ad Delivery Agent sends the m-ads to the end-users via Messaging Service.

The focal mobile ad service system requires that the end users opt in to receive the m-ads, which is also required in the legislation. This solution means that the end user profile information is owned by the service provider. Another option is that the m-advertisers use their own loyal customer information, CRM databases or alike, and send m-ads using the m-ad services only to their own customers willing to receive them.

Positioning of the study

A recent study by Lindgreen and Wynstra (2005) categorizes the existing research as having two distinct focuses; focus on the value of goods and services, or focus on the value of relationships. In the latter category, the topic has been studied at network level (e.g. Kothandaraman and Wilson 2001), at business relationship level (e.g. Hogan 2001; Walter, Ritter and Gemünden 2001) as well as at both levels in the same study (Möller and Törrönen 2003). This study positions itself somewhere in the middle because the customer perceived value in mobile advertising service setting contains elements of them both. The service provider and its customer / customer's ad agency co-produce the m-advertising service and therefore the nature of the service is interactive, likewise a nature of any business relationship. Moreover, since the nature of m-advertising is interaction with the target receivers, such interaction is best enhanced over time, sending series of m-ads to the receivers (and receiving feedback). Thus, the nature of the service creates a need for the m-advertiser to establish a relationship with the service provider. Thus the evaluation of the value of the service blends in with the evaluation of the relationship with the service provider. The latter is, in fact, influenced by the value of the relationships that the service provider has with the other network actors. Moreover, the advertising agency also has its role in the service production, since the creative part of the campaign design influences the value derived by the m-advertiser. Thus, the focus of this study lies in the value customers of the m-advertising service provider perceive from novel m-advertising services. Hence, both the value of the service and the value related to the relationships between the actors are taken into account.

Existing research presents various definitions of the value concept and an extensive review by Woodall (2003) claims that the concept "has neither clearly defined status nor common use" (ibid, 1). Thus, Woodall (2003) aims at clarifying the conceptual meaning of 'value for the customer' (VC). Value for the customer –concept (Woodall 2003) includes also a supplier-oriented perspective (labeled Marketing VC) and two perspectives that highlight value compared to available alternatives and associated with price (labeled Rational VC and Sale VC).

In this study, the focus is restricted to customer perceived value, in other words the m-advertisers' subjective evaluations of value from the m-advertising service. Using the terms of Woodall (2003), this study focuses on Net and Derived value perspectives. The exclusion of the Rational VC and Sale VC is grounded in the context of this study. There were no alternative local mobile advertising services on the market and since the trial period took place within a research project, the service was free of charge.

A view that is shared by several researchers regards customer perceived value as a subjective perception of trade off between multiple benefits and sacrifices, relative to competition (e.g. de Chernatory et al. 2000; Ulaga 2003; Walter et al. 2001). Woodall (2003) titles this net value. This definition highlights not only the benefits gained but also the sacrifices or investments that a customer makes in order to gain the benefits. This study will apply the above mentioned definition.

Although value is in most studies examined as a static concept there are studies that acknowledge the time perspective. Woodruff (1997) suggests that customers consider value at different times, e.g. when making a purchase decision or when experiencing a product performance during or after use. Woodall (2003) borrows ideas from Huber et al (1997) and presents also a longitudinal perspective on value that can be related to a pre-purchase position, a post-purchase position, and after-use position as well as experienced at the point of trade or experience (see Figure 3).

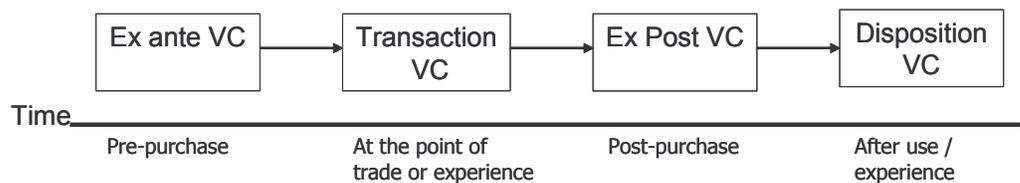


Figure 3. A longitudinal perspective on value for customer (adapted from Woodall 2003)

Halinen and Törnroos (1995) bring into the discussion a vertical time perspective. They state that time should not be regarded only horizontally, i.e. in relation to past, present and future, but also vertically, in relation to the specific cultural and contextual setting. Hence, time is perceived as a relational and multidimensional concept including also cultural, organizational and individual aspects as well as natural and physical dimensions. However, to simplify, this study focuses on the horizontal time perspective and thus the past, present and future aspects of time. However, Woodall's (2003) concept of value for customer suits better to consumer goods than new professional services. This is apparent also in the longitudinal perspective, where Woodall's (2003) disposition value refers to 'the point of disposal/sale' (ibid, 10). It is hard to imagine a real life situation where a customer could resell or dispose a mobile advertising service. Thus, with this preunderstanding this study continues to search for a conceptualization of customer perceived new service value, which takes in both the time dimension and the multidimensionality of the value elements.

Methodology

The research strategy of the present study follows the hermeneutic, theory-building approach (see e.g. Spiggle 1994; Thompson 1997) to understand the dynamics of value creation in new service setting. For example, Flint and Woodruff (2001) emphasize that discovery through theory building research is needed when previously developed theories do not appear adequate to answer the current question. This is the case in this study because research on value creation is at an early stage and the study concerns value creation in a new technology intensive service setting.

Thus, the empirical part of the study began with the loose theoretical preunderstanding presented above. The data collection and its first coding was influenced by the preunderstanding of the researchers. The initial coding was reflected on the previous research and the data was re-coded. The resulting interpretation of the data is presented in the next chapters and summarized in Figures 4 and 5. Before proceeding to the presentation of the results, the data collection and analysis procedures are described in details.

Data collection

Empirical data for the longitudinal examination of value creation in mobile advertising was obtained from a field trial of a research project that provides an infrastructure and a service system for context dependent mobile advertising to the volunteered retailers in a town of ca. 120.000 habitants in Scandinavia (for further details see Ojala et al. 2003). The research project is co-funded by governmental research foundation and private enterprises. Thus, the fact that the research project did not charge the m-advertisers for using the service system has to be beard in mind.

The first field trial of the service system took place in September 2003 and resulted in an analysis of value elements (Komulainen et al. 2004). Thus, the data from 2003 already influenced our above-presented preunderstanding. However, after the first trial, both the field trial setting and the service were considerably upgraded. Thus, the present study draws on the second field trial in which 40 advertisers used the upgraded mobile advertising service system from the 9th of August to the 30th of September 2004. However, the service system was operational and open to trialists until the end of 2004 and some m-advertisers took advantage of the whole period.

Data were gathered through thematic interviews with 17 retailers who participated as mobile advertisers in the field trial (see Appendix 1). The selection of the interviewees was a multi-stage process, where in the first stage we interviewed all the m-advertisers by phone and asked whether they were willing to continue m-advertising until the end of the year. If they were, we enquired their willingness to pay for the telecommunication costs related to sending the m-ads, and to use a commercial m-advertising service, if offered. In the field trial, the research institution acted as a provider of mobile advertising services. Based on their answers, the advertisers were categorized into three groups; enthusiastic, doubtful and negative. M-advertisers from all the three categories were selected to be interviewed. Moreover, we also paid attention to the fact that some of the advertisers that agreed to take part in the trial did not actually send any m-ads, and some had already taken part in the first trial, a year ago. Finally, we also selected m-advertisers that had designed their m-ads themselves, those that had used an ad agency, and those that had outsourced the m-ad design to the research project's personnel. Thus, the 17 advertisers represent a large variety of experience of and attitudes towards m-advertising, as well as various fields of retailing. This theoretical sampling aimed at maximizing the differences between the interviewees who were chosen from the 40 trialists (Glaser and Strauss 1967; Spiggle 1994).

Two researchers interviewed the representatives of the m-advertisers during November-December 2004 and January 2005. The interviewees were the persons who had been responsible for the firms' mobile advertising. The theme interviews covered five general areas: 1) Background information of the company, 2) Objectives for and expectations / assumptions of mobile advertising, 3) Experiences in mobile advertising (including quality of training and guidance, design and implementation of mobile ads, and usage of mobile advertising tool), 4) Effectiveness and utility of mobile advertising and proposals for improvement of the service. The main themes discussed were the same in each interview but the specific experiences of each advertiser were asked with the help of additional questions for to get below surface responses. The interviews were tape-recorded and verbatim transcribed resulting in 171 pages of transcriptions.

Data analysis procedures

The verbatim interview transcripts formed the raw data of the analysis. The unit of analysis was the m-advertisers' representatives' perceptions of the value of the service. First interpretations of the data were based on multiple readings of each transcript in order to capture a holistic picture of the advertisers' experiences. To facilitate the data analysis the original, word-by-word interview data were imported to the QSR N'Vivo software. Computer software was used to facilitate the storing of the text, coding, searching and retrieving text segments and stimulating the researchers' interaction with the large amount of data (see Dembkowski and Hanmer-Lloyd 1995).

Once the researchers received a holistic understanding of the data, multi-authored open coding followed. The first coding was based loosely on the researchers' theoretical pre-understanding. Such a taxonomic organization of the data forms a basis for drawing conclusions (Grönfors 1982, p. 161). During the coding process so-called free nodes and memos were created with words and lines of the transcripts to store the ideas that seemed to give meaning to the data. Constant refinement of concept

definitions and interpretations were tied to specific words and lines within the transcripts, thus opening up the process to scrutiny of all the researchers involved. Interpretations of parts (whether pieces of a transcript or entire transcripts) were compared to each other following the constant comparative analysis method (see Glaser and Strauss 1967; Spiggle 1994; Strauss and Corbin 1998).

In the following sections, the results of the study are described and empirically grounded with the help of interview quotations.

Dynamics and interplay of value elements in customer perceived value

Customer perceived value as a time sensitive concept

This study argues for a dynamic view on value and thus, both dimensions of value i.e. benefits and sacrifices are seen as having past, present and future dimensions. In other words, both the benefits and the sacrifices may be expected, realized and/or potential and they change when evaluated in different points of times and by different actors. Medlin (2004) discusses past, future and present time as reference frames to each other. Past time holds the memories and interpretations of events that are remembered. What we remember is likely to be based on what we need to in order to understand the present and its attendant future possibilities (Mead 1932). Conversely, future time is full of many possible alternatives, from which only one can become the present (Luhmann 1979). However, these views of past and future as continuously changing contexts can only be interpreted in present, thus making it a complex structure which relies on the existence of past, i.e. learning, and future, i.e. intentions and expectations (Luhmann 1979).

Next, these time aspects (past, present and future) are reflected on the three (time-related) dimensions of value, which are expected, realized and potential value. Value assessment is not an objective, rational process but a sense-making process in which managers continuously collect information and fuse that information into understanding of the overall value (Hibbard et al. 2003). Figure 4 illustrates two snapshots of a m-advertiser evaluating a mobile advertising service. First, in Time 1 the m-advertiser has certain expectations for the service they are going to use. Those expectations are related to both the benefits the m-advertiser expects from the service as well as the sacrifices she is prepared to make. In the focal case, the price of the service is excluded from the sacrifices, since the trial was free of charge. The result of the evaluation is referred to an *expected value*. Flint et al. (1997) talk about a desired value, which is what customer wants to happen and the benefits customer seeks for. We have chosen the term expected value, since it contains not only the expected benefits but also the expected sacrifices (monetary and non-monetary) and thus is the expected net value.

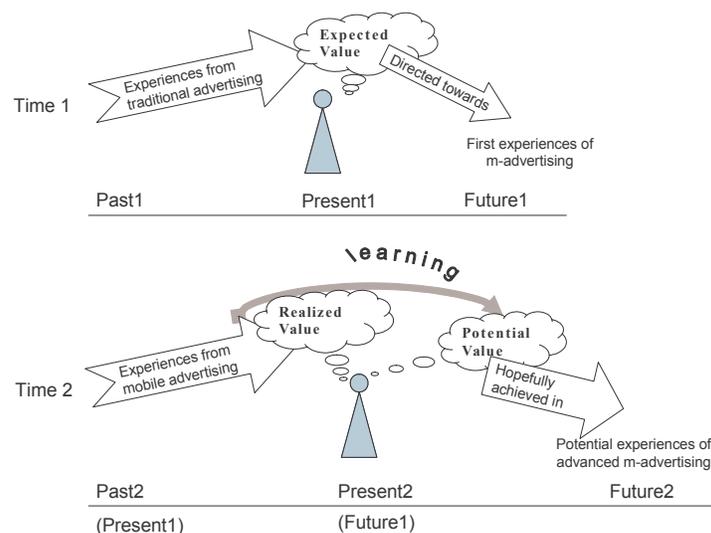


Figure 4. Expected, realized and potential value in mobile advertising services

On one hand, expected value is related to the past events, i.e. m-advertiser's previous experiences. In case of new services there can be no previous experiences of the service, so experiences from similar services or knowledge about other customer's experiences of the new service, are used, if available. In the focal case, the similar service was newspaper advertising that is the most common advertising form used by the local retailers. Because the experiences of the m-advertisers differ from each other, also the expected value is likely to differ. However, on the general level, retailers' experiences from newspaper advertising channel him/her to expect, for example, mass marketing value, i.e. reaching as many persons as possible. The specific benefits of mobile advertising, such as providing personalized information to a single loyal customer or to a just-now-hungry family (see e.g. Salo and Tähtinen 2005) are most likely not expected.

On the other hand, the expected value is directed towards the events in the near future (Future 1) thus emphasizing a future orientation of the concept. As already discussed, future is only one alternative of the many potential ones and thus it is uncertain which one. In a study on relationship value, Hibbard et al. (2003) suggests that uncertainty reduces the value of relationship because it reduces the firm's flexibility to respond to future events. In the focal case, there is not only the 'normal' uncertainty, that is always present in future time, but an additional amount of uncertainty resulting from the new service. Because of the lack of previous experiences the newness of the service amplifies the uncertainty of expected value (see Hogan 2001; Hibbard et al. 2003).

Second, when perceiving the *realized value* the m-advertiser compares the expected value to the experiences gathered during the trial of the mobile advertising service. Thus, in Figure 4, Time 2 moves us to the time after the trial period has ended. Related to this Flint et al. (1997) talk about value judgment that reflects an assessment of what has happened in terms of benefits and sacrifices in a specific use situation. In this study the dimension of *realized value* refers to actual benefits and sacrifices customers perceive when they evaluate the service experiences. The evaluation of the realized value takes place in the present. The target of the evaluation is what happened in the past, i.e. the service experience. However, realized value also encompasses a future dimension by providing a basis for evaluating a potential value created in the future.

Third, *potential value* is the best possible net value that the m-advertiser, in the present time, can imagine to be realized, not now but some day in the future and not necessarily for her. Hibbard et al. (2003) discusses future value as the result of future prices, benefits or investments and sees it difficult to evaluate because of the inherent uncertainty of future outcomes. This is close to the focal context of new and complex service innovation with lots of uncertainties. Möller and Törrönen (2003) present a value spectrum with a future-oriented value production where potential benefits and sacrifices are very difficult to evaluate in advance. However, our concept of potential value extends to such future that can be imagined at this moment, but while it is imagined, it is known that; 1) it has not existed in the past, 2) it does not exist in the present, 3) it will not exist in the near future, 4) it might not ever, but 5) if everything goes well, it might in the foreseeable future. Therefore, it encompasses, at least implicitly, all the three time concepts, e.g. past, present and future.

The perception of potential value includes changes that need to take place between the present time and the future time (Future 2 in Figure 4) before the potential value can become even expected let alone realized value. In the focal case, the changes relate to most important actors in the m-advertising network; the customers, the m-advertisers themselves, and the ad agencies, as well as to the convergence of technology. The actors need to learn how to use the new service and the technology needs to advance so that it will be available to all actors and that different technologies work together. Therefore, we argue that potential value cannot be accomplished by minimizing sacrifices, but vice versa. Increased sacrifices may be needed to achieve the potential value.

The time element has been discussed above in relation the customer perceived value. In the following, the paper takes a closer look at what are the elements, the benefits and sacrifices, that jointly form the customer perceived value in m-advertising. Moreover, the second main argument of the paper, in other words the interaction of the value elements, is elaborated.

Elements of customer perceived value and their interaction

Existing studies offer various categorizations of value elements, although the label is different, e.g. value criteria (Lapierre 1997), value functions, (Walter et al. 2001), and value drivers (Ulaga 2003).

However, Komulainen et al. (2004) is the only study that operates in the mobile services context. Komulainen et al (2004) identifies six customer perceived value elements in mobile advertising services. Five of them are benefits; service quality, service support, service provider's know-how, interaction, and pioneer status. The sixth element, sacrifices, contains both monetary and non-monetary investments, although empirically, the paper only discusses the non-monetary ones. The paper classifies the above-mentioned elements using Lapierre's (1997) classification criteria. Hence, service quality, service support, service provider's know-how, and interaction are seen as the exchange level elements, i.e. the attributes of the service. The pioneer status is seen as the value-in-use level element, i.e. the outcome of the service.

The general view in value creation research sees benefits as increasing the customer perceived value and likewise sacrifices as decreasing the value (e.g. Kothandaraman and Wilson 2001; Lapierre 2000; Walter et al. 2001). The general logic thus is that there are two ways of increasing the value. The first one is to increase the customer perceived benefits and the second one is to reduce sacrifices (e.g. Ravald and Grönroos 1996; Leino 2004). However, we suggest a more complicated logic. What if certain sacrifices could increase the value and certain benefits decrease it?

The co-production of services itself suggests that a certain amount of sacrifices are actually needed from the customer in order to produce the service and thus create value. Likewise in business relationships, the creation and acquisition of value in business relationships depends on the investments the parties make (Johanson and Mattsson 1985). Blankenburg Holm et al. (1999) states that in order to create value both partners of a relationship have to make short-term sacrifices to realize long-term benefits. Moreover, Komulainen et al. (2004) illustrates that those advertisers that invested time and effort in using a mobile service perceived more value than those who did not. The novelty of any service also increases the initial efforts the customer has to put into the co-creation of value. In other words, the customer has to learn how to use the service, but also teach the service provider her/his preferences, so that the individual customer will receive the maximum value. Therefore, we can argue, that in services and in business relationships and especially in novel services, increase in certain sacrifices increases the value, instead of decreasing it. It is of course also a question of the amount of sacrifices; there certainly is a limit after which any increase in sacrifices will decrease the value. Benefits and sacrifices are thus interconnected components of perceived value and to understand the value concept the sacrifices need to be taken into account.

Respectively, also the intended benefits can increase the level of perceived sacrifices. To understand the interaction of benefits and sacrifices, we suggest that the realized benefits can be classified as above zero, more or less zero and below zero. The first two categories represent benefits that increase the realized value and the third category represents a benefit that increases sacrifices and thus decreases value. If the level of some of the benefit elements is very low (i.e. below zero), it may cause the customer to increase its sacrifices in order to raise other benefits and receive value. This was the case in Komulainen et al. (2004) where technical service quality and interaction were identified as two customer perceived value elements. However, m-advertisers experienced severe problems in these value elements and, hence, the potential benefits associated with these value elements in fact decreased the realized value. Thus, we state that the benefits may have a negative impact, and the sacrifices may have a positive impact on the net value perceived by the customer.

This study aims at providing a dynamic view on customer perceived value as a multi-dimensional and time-sensitive concept. To understand the value concept, both the benefits and the sacrifices need to be taken into account. The relationship between the two elements is intricate as the discussion above reveals. When brought into the context of new technology intensive services the dynamism of value creation makes the understanding of the phenomenon even more complex, because the services are still under development and both the customers and the service providers are unsure about the best way to co-create value. Novel technology intensive services include value creation that changes and takes different forms during the service delivery and usage process, i.e. before the actual services consumption, during it, and even afterwards. Also relationships develop over time, each time creating a different context for service evaluation (see Halinen 1996). Therefore, the dynamism of value creation is particularly emphasized in the context of these kinds of services. Figure 5 summarizes the interactive and dynamic nature of customer perceived value in the new mobile service context.

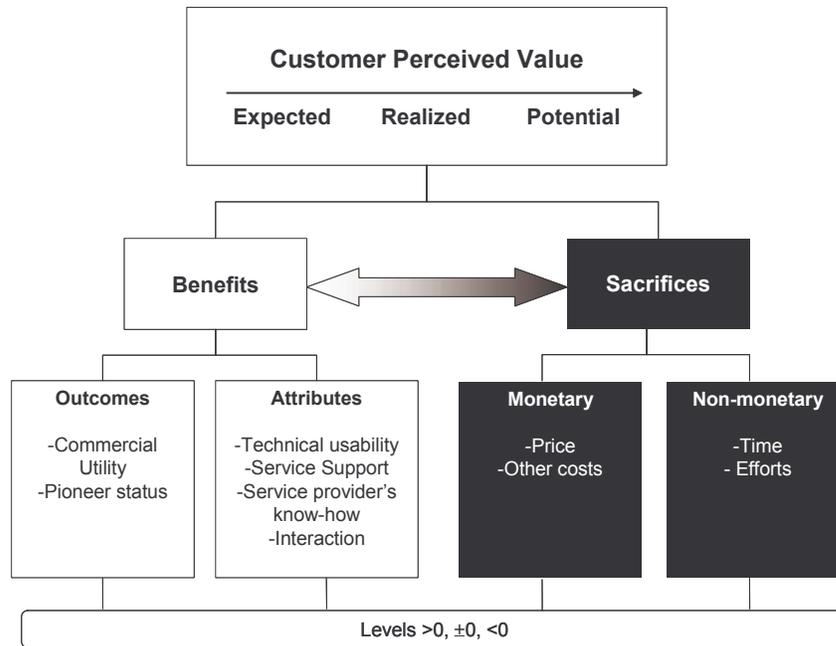


Figure 5. Benefits and sacrifices in mobile advertising services

The following sections of the paper grounds empirically the above presented conceptualization. Using direct quotations from the interviews and discussing the related interpretations of the data we illustrate and elaborate on the benefits and sacrifices that the mobile advertisers perceived. Each value element is discussed in the light of its dynamic nature, i.e. the expected, realized and potential dimensions of value of the mobile advertising service as well acknowledging the complex relationship between the benefits and sacrifices.

Customer perceived value in the context of new mobile advertising service

Expected value

Expected value refers to the difference between the benefits and sacrifices that the m-advertiser expects to occur when the service will be used. The perception of expected value influences customer's willingness to try a novel service and to form a relationship with a new service provider, that being the situation.

Our data reveals that the expected benefits were centered on two outcome level benefits; the commercial utility of the service and pioneering advantages, i.e. learning from using the service. The expectations are centered on the commercial utility, i.e. consumers' responses to mobile advertising as illustrated in the following quotation.

"It [the aim] was purely to increase the target segment's awareness of us [...] and the ads to reach the specific target groups that are important to us and are potential customers for our products." **Gifts and interior decoration shop**

In this case, the m-advertisers knew that the new service was still under development. Being a pioneer and learning new things about a medium of the future appeared as an important benefit expected to create value for the m-advertisers. All retailers established the relationship with the service provider expecting to learn new things and to receive hands-on experiences of a medium that may create direct commercial value.

"[We thought that] it will be one of the most important channels in the future. The print and web-ads are not working, so we wanted to get first-hand experience of the effectiveness of mobile-advertising that comes directly to the consumers' mobile phones." **Mobile applications retailer**

A customer may consider four attribute benefits when evaluating the expected value in technology intensive services; technical usability, service support, service provider's know-how and interaction (Komulainen et al. 2004). When analyzing how the m-advertisers described the expected value, all the four attribute benefits are clearly subordinates to outcome level benefits. For example, the m-advertisers discussed the technical usability only as a means to reach their target consumers more effectively than by using a traditional advertising.

"The most important difference [to the traditional advertising] is the possibility of targeting, i.e. that we can target the message better and tailor the message [to the consumer needs]. And we can take into account time and place and interests [of the consumer]." **Conglomerate**

Our interpretation is that the m-advertisers implicitly expected a certain level of technical usability as a prerequisite for the commercial utility. Thus, technical usability is not expected to be a benefit that would increase the value. The same holds true with the rest of the attribute benefits; service support, service provider's know-how and interaction. When the m-advertisers talk about expectations, they do not mention these benefits. Therefore, we suggest a new way of thinking about the role of these benefits in expected value. In the present case, the service provider offered individual hands-on training to the soon-to-be m-advertisers. Most likely this information exchange and transfer of service know-how about the system showed the m-advertiser's that commercial utility and pioneering benefits are possible. These benefits encouraged the retailers not only to try the service, but also to make sacrifices in co-producing the service although they did not expect the benefits to be realized right away.

Willingness to make sacrifices (i.e. invest money or other resources) is dependent on the expectation of benefits. In the present study, primary expected benefits were the commercial utility and the pioneering related status and learning. The m-advertisers discuss their sacrifices especially with reference to these two benefits. Many m-advertisers noted that they did not have any expectations on the commercial utility of the service. It was seen to be only in the development stage and to be accepted by the consumers only in the foreseeable future. This influenced directly the willingness of the m-advertisers to make any sacrifices, either in monetary terms or in terms of any other resource use.

"I just felt then that I will put that kind of a picture [in the m-ad]. I did not want to wonder too much because they [the m-ads] don't have any commercial utility yet." **Leather wear shop**

"We will not make any large investments until we know that the service really works." **Conglomerate**

Since the m-advertising was free of charge the m-advertisers also expected their sacrifices to be relatively small, consisting primarily of the use of time for designing, implementing and following-up the mobile-advertising. The non-existing price made the m-advertisers willing to make non-monetary sacrifices, although the commercial benefits were highly uncertain. Some m-advertisers noticed that, if you wish to receive the pioneering benefits, you cannot avoid making sacrifices that will be paid back only in the long run.

"We wanted to test the system, what it is in practice and if it works. We were interested in finding out about the system while it was possible to discover it cheaply." **Health food shop**

"In my opinion, it was clear that this is pioneer work from all the participants, also from the retailers. We must invest and make sacrifices at this phase so that it will bear fruit in the future." **Gifts and interior decoration shop**

To summarize, the expected value of the mobile advertising service consisted of the perceived difference between some commercial utility benefits and significant amount of learning benefits and small amount of non-monetary sacrifices. This calculation resulted in expected net value that made the retailers establish the relationship with the service provider. The attribute level benefits, which can be seen as the technical or other parts of the service package, seem subordinate to the outcome level benefits and sacrifices. They were the means for the service provider to raise the outcome expectations of the m-advertisers, but they were not direct elements of expected value. Outcome level benefits acted as factors motivating the retailer to try the new service, although no value could be

guaranteed. Expected outcome level benefits also motivated the m-advertisers to make, at least some, sacrifices in the co-production of the new service, although the investments were risky. Next, we move on to discuss whether the expected value became realized value.

Realized value

The realized value is the net value of the m-advertising service perceived by the m-advertisers when they compare their experiences to the expected value. In the following we again analyze the m-advertisers' perceptions of the benefits and sacrifices which sum up the realized net value.

The m-advertisers emphasized commercial utility when evaluating the realized value. Commercial utility seems to be the most important element that strongly and directly influences the overall perception of the realized benefits.

When m-advertisers talked about their perception of the technical usability soon after the trial had ended, they took up three dimensions of it. The first dimension was how well the technology was working when they were using the content provider interface. The m-advertisers perceived the level of that dimension to be above zero as seen in the quotation below. However, two reasons made the m-advertisers to perceive the total technical usability to be close to zero. First, there were problems in sending the m-ads flawlessly to different mobile phones. This happened because even within a same manufacturer, different phone models use different software versions that require different settings and moreover, different mobile phone manufacturers use different software in their phones. Second, the project was unable to reach the set target number of trial consumers willing to receive m-ads.

"So it was very quick. That is one of its strengths that it is so fast to change, to react quickly. If we think about the print media, it takes so much longer time." **Telecommunications shop**

"We thought that this would be a more complete solution. In my opinion, in addition to the technical challenge [of sending the ads flawlessly to consumers' mobile phones] this task was not finished, I mean that this [the idea of m-advertising] was not communicated clearly and simply to the end-customers." **Conglomerate**

An m-advertiser may receive realized commercial value from a mobile advertising service only if consumers accept it and react to it. The technical usability would be above zero only if the service is easy to use, it functions in the mobile phones owned by a majority of m-advertisers' customers, and the phones show the m-ads correctly and at the right time (e.g. utilizing context-awareness and targeting according to the interests, mood and location of target customers). Now the realized value was close to zero because the pool of the possible end-customers was far too small. Majority of the m-advertisers did not notice any increase in their sales that would be caused by the m-ads. Those who noted, however, were very satisfied and even noted that realized value surpassed their expectations.

Pioneering proved to provide wider realized benefits than the m-advertisers initially expected. They saw the learning, experiences and new ideas they got during the mobile advertising trial as clear benefits. It was worth being a forerunner in the new service testing and utilization. Realization of pioneering benefits required personal interest and open-mindedness to try and learn new things and provided also personal benefits.

"I was [positively] surprised when I did not feel myself as a complete fossil but I was so quickly in to it [the m-advertising system]." **Traveling agency**

On the other hand, pioneering is seen important also in relationships with other interest groups than just with the customers, like the following quotation on realized value confirms:

"I have written articles [about the mobile advertising project] into our nationwide magazines. We wanted to tell what is going on in our city and that everything is not done in the metropolitan area." **Telecommunications shop**

When discussing about other attribute benefits, i.e. service support, transfer of know-how, and interaction the m-advertisers noted the realized value to be above zero. Well-functioning service support (e.g. help-desk) eased the implementation of mobile advertising. Success in transferring

know-how about the possibilities of mobile advertising prompted the retailers to test some of the features that mobile advertising brings with it in comparison to traditional advertising. Continuous interaction from the service provider kept them informed about the functioning of the system and the number of trial customers. However, when discussing the net realized value they do not directly refer to these elements. That way these attribute level benefits are again subordinate to the outcome level benefits, commercial utility and pioneering.

The realized sacrifices included investing time and effort to learn and to test the new technology and also the m-advertisers' own ideas of how to use m-advertising. Even the skills of the m-advertiser's advertising agency were put into a test, but this of course involved direct monetary costs.

“[We needed to use our resources] surprisingly little actually. [...] The first ad took some time [...]. But when we had done it once, it did not [take much time]. Maybe it took some two-three hours from Jenny and me together from planning to implementation. **Telecommunications shop**

To summarize, the m-advertisers perceive the commercial utility and pioneering as the primary benefits in realized value derived from the m-advertising service. The effectiveness of the medium in both reaching and attracting the potential customers to make purchases is a considerable element in the ultimate service outcome (see Halinen 1996) and thus also in the net realized value of the service. Lack of explicit notes on service support, service provider's know-how and interaction with service provider as value creating benefits opens up the possibility of seeing these elements as similar to the hygiene factors in management research (see Herzberg 1971). Hygiene factors do not directly increase motivation but decrease motivation if badly taken care of. In the first trial (Komulainen et al. 2004), the deficits in interaction created uncertainty about what is going on and this decreased the perceived value of the relationship. Therefore, continuous interaction is important even though bad news were needed to be delivered (e.g. about delays or technical problems). It kept m-advertisers satisfied during the service process although the expected net value was not yet realized.

The monetary costs are considered as the most influential sacrifices. The smallest m-advertisers compared the monetary sacrifices always to monetary benefits, i.e. commercial utility. When discussing the net realized value, the m-advertisers perceived the pioneering benefits high above zero although they were uncertain about the level of commercial benefits. When the commercial utility scored below zero, the realized net value was often seen as negative, when monetary sacrifices had been made. Although the service was free of charge, an example of monetary sacrifices is paying for the services of an advertising agency. When monetary costs were non-existing and other costs were perceived to be at a low level, the pioneering benefits raised the perception of the net realized value to a satisfactory or even superior level.

Potential value

The perception of potential value includes changes that need to take place between the present time and the foreseeable future for the maximum value of the service to become realized. When the m-advertisers looked into the future and thought about the potential value of the service, the triadic nature of one of the benefits, namely the commercial utility, became emphasized. They note that the actions of service providers, m-advertisers and consumers together define the potential value of the service and each group needs to make initial sacrifices to learn how to use the new medium. The best way for a retailer to reach for the potential value of mobile-advertising might be to use it as a part of integrated marketing communications.

“Mobile-advertising and m-marketing is, however, only one medium among all the others. It is predicted to grow in importance but the business will not, even in the future, be taken care of only via mobile-advertising. Its role may be emphasized but [before that] the advertisers need to learn to understand its possibilities and role better.” **Conglomerate**

The m-advertisers emphasize also that the potential value of the service is highly dependent on consumers. Consumers need to get used to mobile advertising and need to learn to use it to the extent that they see it as an everyday, effective medium for communication with retailers. The major uncertainties that the m-advertisers connect to the future are junk messages (like junk mail) and the personalized nature of mobile phones. At the same time, the m-advertisers saw new possibilities. The

system could be applied not only for m-advertising, but also for serving and interacting with one's loyal customers, as illustrated in the following quotation.

"In the future this could be active interaction with our audience. If we think about the people that have bought our year ticket, people belonging in a way to our club, we could serve them better, not just marketing but serving them. It would be personalized interaction." **Art museum**

Concerning the technical usability, the service provider should overcome two challenges; firstly the problems related to multiple mobile phone technologies and secondly; connecting various actors in the field (operators, mobile phone manufacturers, etc) to a business network (see also Komulainen et al. 2005). Viewing m-ads should also be technically as comfortable as possible to both retailers and consumers, which means, for example, getting rid of the need to use slow and perhaps costly GPRS-connection.

By and large, the m-advertisers note the possibilities of mobility and context-awareness that m-advertising offers. They estimate that it takes two to ten years before the tool becomes commercially and technically feasible. When mobile advertising inevitably becomes a common practice some day, pioneering is expected to pay back, ideally in a form of direct competitive advantage. On the other hand, being a pioneer was noted to be often expensive and small retailers do not have the money to be one.

When considering the future monetary and non-monetary sacrifices, the willingness to invest is fully dependent on the expected commercial utility of the service. Many m-advertisers thought that they will be willing to invest in mobile advertising only when it is a common practice with demonstrable benefits.

"If it [the m-advertising] some day provides something that the other media do not... better price-quality relations, better targeting [of messages] or something else and it has proved its effectiveness, according to market rules anyone is willing to pay for a medium that provides benefits that other media do not. But now it is far from that." **Shoe shop**

The potential value of service support, service provider's know-how and interaction are centered on the commercial utility element. Feedback on consumer response would be highly valued by the m-advertisers. This is emphasized because of the newness of the service. Retailers do not have previous experience of the medium and they are aware of their needs to learn. Therefore knowledge of consumers' responses as well as actions of other m-advertisers would be valued.

To summarize, the m-advertisers perceived the potential value of mobile advertising service centres on the features that differentiate it from other types of advertising. A high-value service would enable the m-advertiser to interact with potential as well as loyal customers in a personalized and context-aware way just when each customer is willing to do that. Developing the technical usability of the service is one necessary step for it to become a high-value service. Maybe a more difficult challenge is the attitudinal change that needs to take place before the commercial utility of the service will be realized. The retailers acknowledge that there is a lot to be learnt and low-cost pioneering is seen as worth while, although the achievement of future commercial benefits is uncertain. Nevertheless, most of the small retailers are not willing and able to make considerable monetary sacrifices before commercial utility will be demonstrated. This means that they will wait for others to show the way, and they will follow, although it means that they will lose some of the pioneer advantages.

Interaction of customer perceived value elements

Novel services are inevitably co-produced by the service provider and the customer and therefore a certain amount of sacrifices is actually needed from the customer in order to produce the service and create value. Therefore a sacrifice may increase the realized net value of the service.

In the present case, several m-advertisers noted that their realized value could have been greater if they had invested more time and effort into the service trial. The following quotation is one by an m-advertiser who invested very little in the trial and did not make any ads.

"I don't have any idea of the potential benefits. When we did not get any experience from this trial it is hard to say. Maybe there could come some new customer to be found." **Video shop**

The next citation comes from an advertiser who made ads but did not do any follow-up. The second one is a quotation from an m-advertiser who tried to take everything out of the trial and used time and effort, although not money on the trial.

“Maybe we should have had more follow-up by ourselves somehow. [...] But unfortunately we did not do any. [...] I also thought to collect experience as a recipient by myself but then I left it out. I’m so bad with my own mobile phone and this was of different brand. I thought that it will not work out.” **Traveling agency**

“Yes, [we got benefits for the sacrifices]. But we were looking also other things than commercial value: I wrote two articles to our nationwide magazine [...]. I used the m-ad service both as a consumer and as an advertiser and that way achieved own viewpoint. We got communications and high tech image value when telling to our customers that we use this. And we got first-hand experience. But the commercial benefit was not significant. [...] But there were other elements. We took everything out.” **Telecommunications shop**

The following quotation illustrates, however, that when the m-advertiser directly invested money to buy services, e.g. from an ad-agency, the relationship between benefits and sacrifices was perceived negative. They expect the direct monetary sacrifices to be compensated by direct increases in sales.

“We used time and effort to think about this, plus some thousands of euros to buy services from the subcontractor [a film company]. In that sense our investments were unreasonable compared to the benefits.” **Conglomerate**

The level of customers’ sacrifices can raise if the level of a certain expected benefits remains below zero. In the case, several m-advertisers expected benefits from the context awareness, which is a bundle of features that separates mobile advertising from other forms of advertising. However, due to the early development phase of the service system all the promised features did not perform in practice and thus the expected benefits did not realize. An example is the location awareness feature, i.e. in ideal situation the mobile advertising system would be able to locate the potential customer and send her/him an m-ad from a retailer that s/he is just walking towards. Some of the retailers had set expectations on this feature and designed m-ads that would make use of the feature. Thus, based on the expectations, they had sacrificed their time. When these benefits could not be realized, it lowered their perception of net value of the service. Similarly the service provider had created certain expectations on the number of consumers involved in the trial and this had attracted several of the retailers to participate. When these expectations, which were seen as the basis for commercial utility of the service, were not realized the sacrifices made were perceived even greater. M-advertisers proved also to be quite sensitive and easily took actions when they began to doubt the net value of the co-produced service as illustrated by the following quotation:

“Initially we thought that we would invest heavily [in the mobile advertising experiment], but then it was revealed that there are so few consumers involved. Then we were discouraged in our efforts. If you had had thousands of consumers, we would have been very [active]... Initially we planned to make several ads to several target groups.” **Art museum**

In sum, due to the nature of novel m-advertising service the sacrifices made by the customer are emphasized in this context. As in any services the customer plays an important role in the co-production of the m-advertising service. Only by making sacrifices, e.g. in the form of time and effort, the customer can learn to utilize the special features of the new way of advertising. Thus, making sacrifices can increase the benefits more than the increase in sacrifices will be.

To be able to achieve the potential value in the m-advertising services the expectations of the customer, i.e. m-advertiser, need to move from the benefits and sacrifices related to traditional advertising to the ones of m-advertising. Only this way the expected value moves closer to what can be realized as well as closer to the potential value, although the potential value is not possible to achieve yet. This requires that the customer of the m-advertising service provider is willing to invest in learning the unique features of the new kind of m-service and is able to replace the “old” way of thinking by new ideas concerning advertising. Therefore, we suggest that in technology intensive services potential value cannot be achieved by minimizing sacrifices. Instead, sacrifices e.g. mutual

learning and adaptations are needed not only from the customer but from all parties to achieve the potential value.

Discussion

This paper explored the customer perceived value in the context of new technology intensive services. This study brings two theoretical contributions to the customer value discussion by that often views value as a static concept and as the difference between benefits and sacrifices. The first contribution is a conceptualization of customer perceived value as a time-sensitive concept that has past, present and future dimensions. The dimensions are titled as expected, realized, and potential value and they are connected to each other through the learning of the customer.

These new insights into value co-creation in time are highly connected to the context of the study; new mobile services. The concepts of customer expected value, customer realized value and potential customer value emerged from the empirical data, from their past expectations, experiences and future expectations of the managers who tried the new mobile service and reflected these in the interviews. Thus, by distinguishing three concepts, we can understand customer perceived value in relation to the specific time, before the first service experience, after using the service for a while and in anticipation of the future, improved service.

The second theoretical contribution that the paper brings forward is a proposition that the value elements; i.e. benefits and sacrifices have a complex interaction in service value co-creation. We argue that the attribute and outcome benefits and monetary and non-monetary sacrifices can not be straightforwardly counted, so that the sacrifices inevitably decrease the customer perceived net value and the benefits always increase it. Certain sacrifices may increase the value, instead of diminishing it and likewise some benefits, unless they reach a level above zero, may cause the customer sacrifices and thus reduce the realized net value. Moreover, the sacrifices have a different role in the value creation process. The attribute benefits do not increase the value, but are subordinates to the outcome benefits. We suggest that attribute benefits are so-called hygiene factors (see Herzberg 1971). In other words, if the attribute benefits are above zero, the outcome benefits can also be perceived as above zero. If, on the other hand, the outcome benefits are perceived as below zero, attribute benefits cannot raise the customer's net value perception to acceptable level. Whether a certain value element is a value increasing or decreasing element when it is being assessed, may be dependent on the novelty and type of the service and the mechanisms of value creation of the service setting as a whole. However, the attribute benefits can be used in increasing the first time users' interest in trying the service. At the same time, this will, of course, increase the users' expected value.

The above mentioned contributions both relate to the question of how to conceptualize customer perceived value. Therefore, it is very difficult to discuss the contributions separately, and this is the reason why the following discussion intertwines the issues.

Although in emerging value systems the value evaluation is customer expected value, customers still distinguish certain elements of value that they look for in the service. The expected value is always subject to uncertainty (see Hogan 2001; Hibbard et al. 2003), and thus it is likely that a customer is very sensitive to the signs that show whether the expectations are realized or not during the first trial use of the service.

Being a pioneer is a central benefit of any new product or service relationships (see e.g. Loftus and Meyers 1994). In existing manufacturing relationships a supplier may be able to create value to a customer through design tasks, prototype development and product testing and validation (see e.g. Ulaga 2003). However, in new service context, the service cannot really be tested or validated without the customer taking an active role. Therefore pioneers are invaluable for the service provider. This paper shows that the value of pioneering to the customer depends on its efforts in taking everything out of the trial.

When moving on to the present time, the expectations become related to the customer's perceptions of realized value. Customers assess the value compared to their past expectations, on one hand, and on the basis of their experiences of the use of mobile advertising service, on the other hand. In the examined mobile advertising service system the high expectations on e.g. the number of consumers

that can be reached, which were created before the trial influenced the value perception after the trial. Thus, the m-advertiser's evaluation of the commercial benefits remained way under zero. On the other hand, many of the m-advertisers perceived realized benefits from the learning opportunity, which then was reflected into their perceptions of the potential value of the service system in the foreseeable future.

The potential value concept moves the realized value closer to what can be realized although not possible to achieve yet. For potential value to become realized value in a new service context, requires that the both the customers and the service providers are willing to invest in learning. The customer needs to learn a new way of doing things and the service provider needs to listen to the customers and improve the service, so that customers' new ideas are incorporated into the service. Therefore, we suggest that in technology intensive services potential value cannot be achieved by minimizing sacrifices. Instead, mutual learning and adaptations are needed not only from the customer but from all parties (e.g. customers' customers) to achieve the potential value.

For managers the paper offers 'food for thought' in three respects. Firstly, for a new service provider, it is good to recognize the elements of value that customers pay attention to when deciding whether to use the service or not. Customers find it easier to try new services if they are assured that they have a high usability (technical if appropriate), there is support staff to help in any problems, service provider will give advice on how to best make use of the service and keeps the customers well informed in the developments of the service and other issues related to its use. Secondly, the different role of the benefit elements helps the service providers to emphasise that in new service development, the first customers have to understand that the outcome benefits require also some sacrifices from the customers' side and that the service provider is willing and able to help the customer to make the sacrifices (e.g. new thinking and new ways of doing things). If the service provider is able to adjust the expectations of the customer to a right level, the customers' realized value will increase and the changes of getting him/her to use the service on a regular basis increase.

Thirdly, in such professional services as mobile advertising service, the outcome benefits are always subject to, not only the co-creation of value by the service provider and the advertiser as a customer, but also the co-operation of the consumers. The advertiser expects to receive feedback from the service provider about the consumers' responses to the company's m-advertising. The advertiser and/or their advertising agencies have the responsibility of planning advertising messages that attract the target consumers and respond to the consumers' feedback. Moreover, consumers have to be willing to interact with the m-advertiser and provide personal profile information through this medium, to make sure that the messages received are of value to her/him. The customer realized service value is defined by the actions of and interaction of all these actors.

When evaluating any study, certain shortcomings always can be found. This paper draws heavily on interview data that has been acquired from retailers that used a novel m-advertising service for a relatively short time and without any price to be paid. However, the aim of the paper was not to find out how valuable the service as such was for the retailers, and thus we feel that the price issue and the field trial nature of the service setting does not cause a severe threat to this study. The short duration of the service usage is an issue that remains to be corrected in the future studies.

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APPENDIX 1. Interview data

Line of retailing	Date	Duration	Interviewee(s) position
Co-operative; groceries, clothing, a hotel, restaurants	3.11.2004	45 min	Communication Manager
Mobile applications	8.11.2004	45 min	Manager
Art museum	19.11.2004	35 min	Press Officer and Assistant
Advertising agency	23.11.2004	30 min	Assistant
Leather ware	24.11.2004	30 min	Shop Manager
Videos	24.11.2004	15 min	Shop Manager
Mobile phones	25.11.2004	30 min	Shop Manager
Health food	25.11.2004	30 min	Shop Manager
Traveling agency	25.11.2004	25 min	Customer Service Manager
Shoes	25.11.2004	40 min	Shop Manager
Furniture	26.11.2004	30 min	Owner
Music store	27.11.2004	25 min	IT-support
Oriental Restaurant	30.11.2004	30 min	Owner
Telecommunication	30.11.2004	40 min	Office Manager
Clothing	3.12.2004	25 min	Advertising Manager
Clothing	8.12.2004	30 min	Administrative Manager
Gifts and interior decoration	19.01.2005	60 min	Owners (two persons)