

An Activity System Model of the Value Creation in the Service Context

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Abstract

The purpose of the study is to examine and model how customer companies in interaction with suppliers and other network actors create value in service production setting. Both the value creation and service production are conceptualized as processes that are related to customer, supplier and other network actors and the reciprocal interaction between them. The empirical setting organised to acquire data is a qualitative real-life experiment that consists of three field experiments. On the basis of the study we state that the content of the value creation process comprise of the use of the service in the customer's activities in a way that it produces more benefits than sacrifices and perceiving this difference. In this sense value is created by the customer only. The customer-supplier interaction in the service production and the customer's activity systems forms the context for the value creation.

Keywords: Value creation, Service production, Mobile Advertising, Activity System Model

INTRODUCTION

Value and value creation are currently receiving an increasing attention from both academics and practitioners and are key areas of interest in the current research on business relationships and networks. It has been stated that the most important reason for engaging in a business relationship is the opportunity it provides for value creation (e.g. Boyd & Spekman 2004). A large variety of views concerning value have been presented as the concept has been recognized and studied widely within marketing and management research (e.g. Anderson & Narus 2004, Kothandaraman & Wilson 2001, Lapierre 2000, Lindgreen & Wynstra 2005, Menon *et al.* 2005, Möller & Törrönen 2003, Ulaga 2003, Zeithaml 1988).

The basic distinction can be drawn between *value-in-exchange* and *value-in-use* concepts as dimensions of value (see Grönroos 2008). The former reflects the view according which the value is an element loaded into the exchanged products in supplier's manufacturing processes and exchanged in transaction for money, for example. The latter views the value to be created in customer's value-generating processes. The recently intensively evolved discussion on service dominant (SD) logic (see Vargo & Lusch 2004) puts emphasis on the value creation. In its fundamental premises (see Vargo & Lusch 2008) the supplier's contribution is limited to offering of value propositions and the customer is the value co-creator who creates and determines the value in its domain. It is reasonable to ask then, like Grönroos (2008) does that who creates and who co-creates value; are the supplier the main-creator of value if the role of the customer is defined as the co-creator. Or is the supplier at all an active subject creating value if the value is created on the customer demand (cf. Vargo & Lusch 2008)? Despite such popularity of a research area it is evident that a further work is still needed to conceptualize, model and understand the value creation process (see Lin *et al.* 2005).

We believe that the presented contradictory in terms of supplier's and customer's roles in value creation is partly related to service production that as a concept is interlinked with the value creation in the literature (e.g. Vargo & Lusch 2004, Grönroos 2008). For example Edvardsson *et al.* (2005, 118) define service as a perspective on and a result of value creation rather than a category of market offerings. On the other hand the value-in-use notion would, at least in some circumstances, demand that the service precedes or parallels the value. In this respect this study aims to conceptualize and understand the value creation process with reference to service production.

The purpose of the study is to examine and model how customer companies in interaction with suppliers and other network actors create value in service production setting. Both the value creation and service production are conceptualized as processes (Vargo & Lusch 2004; Grönroos 2006) that are related to customer, supplier and other network actors and the reciprocal interaction between them. With regard to any process it can be presented in terms of interplay between the content and the context (Pettigrew 1992). Respectively, the research purpose has been divided to two subquestions:

1. What is the content of the value creation process?
2. What is the context of the value creation process?

For the purpose of understanding the value creation and service production the study applies the activity system model (see Engeström 1987) complemented with the research on value creation and service production within services marketing and within the industrial network approach. On this basis the paper proposes a generic model of the processes that is then applied to the empirical reality.

The empirical part of the study is conducted in the form of a qualitative case study. The empirical setting organised to acquire data is qualitative real-life experiment. It consists of three field experiments that were organised by the research project to simulate real-life situations and to gain understanding of developing technological services that are not yet in commercial use. Interviews, observations and personal experiences form the main sources of information and are complemented by secondary documental data. The unique context of the study enables in-depth exploration of the phenomenon of service co-production and value co-creation. The paper contributes the current understanding by defining the processes of value creation and service production and providing understanding on their mutually evolving interplay with reference to the customer's own activities as well as those of the suppliers' and other network actors'. Compared to the current literature, this type of structured approach enables clearer and deeper understanding of these processes in a network context (cf. Komulainen *et al.* 2007).

The paper is organized as follows. Firstly the activity system model is briefly introduced. Then it is applied to structure the value creation and service production discussion leading to a theoretical framework of the paper. The methodology section describes the research approach and methodological stances of the empirical study whose results are then presented. Finally the study provides a brief discussion and conclusions on the results.

THEORETICAL BACKGROUND

Activity system model

Activity theory emphasizes that activities can be understood only in their psychological, cultural and institutional contexts, not in isolation (Engeström 1987; Vygotsky, 1978; Leontyev, 1978; Luria, 1976). The subject, object/outcome, and community are the core elements of the model and are connected directly and through the mediatory elements of instruments, rules and norms, and division of labor.

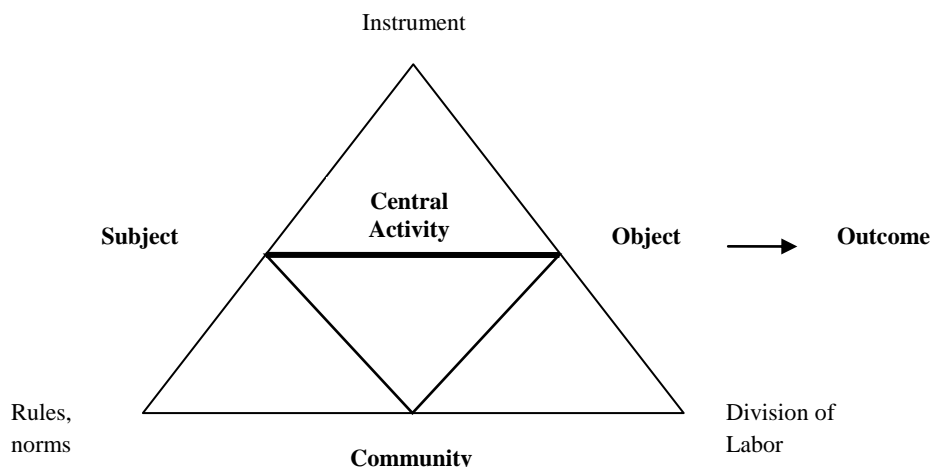


Figure 1 Activity system model (Engeström 1987, 78)

In the heart of the activity system model is an *activity* between subject and object. Activities emerge as collectives from individual actions (see Leontyev 1978). Individual actions are bound together as a subject targets its efforts toward an *object* in order to reach a

desired *outcome*. In performing the activity the subject employs *instruments*, that can be both technical artifacts and abstract constructs like language, theories, or psychological tools of mind that bring the prior knowledge into the current activity while mediating the activity towards object (Luria, 1976).

The central activity is shared in the activity system model. The individual subject is in interaction with the *community* that affects the activities of the subject as the subject perceives, interprets and acts upon the *shared rules and norms* and attributes meanings to the activities (Vygotsky, 1978; Leontyev 1978;). In other words, the structural elements posed by the communities constantly shape central activity through the interpretations of the individuals involved in it. Similarly individual subjects in and through their activities reproduce the rules and norms that guide their interaction with the community.

The subject and the community have a shared interest towards the outcome of the activity. The *division of labor* mediates the share and role of the community in forming the outcome through the object of activity. This connection between community, object and outcome has two types of influences on the central activity. Firstly, tasks between the individual subjects as part of the group are divided, either by beforehand as a result of organizational positions or other formal hierarchies or informally as a result of doings of these individuals based on their personal interests or expertise. Secondly, the division of labor refers to interconnections and priority status between central activity in the focal activity system and other activities and other activity systems related to the community and individual subjects (cf. Engeström 1987). The next sections integrate the organizational buying and network and interaction approaches to the activity system model.

Value and value creation in service setting

Grönroos (2006) views service as a value-supporting process that consists of activities which take place in interaction between a customer and people, goods and other physical resources, systems and/or infrastructures representing the service provider and possibly involving other customers. In this sense the service is a processual phenomenon that takes place within the interaction between the supplier and customer and potential other actors. Instead of given a passive role, the customer is in growing amount seen as a co-producer of a service (e.g. Grönroos 1978, 1991, Gummesson 1979, Vargo & Lusch, 2004). The following figure 2 depicts the service co-production in the light of activities, resources and actors, or so called ARA-model (see Håkansson & Johanson 1992; Håkansson & Snehota 1995). Service (in the middle of the shaded area) is seen as an activity conducted jointly by the actors of the supplier and the customer. The supplier's network and network activity constellations as well as customer's network and network activity constellations compose the resource domains that facilitate the service activity.

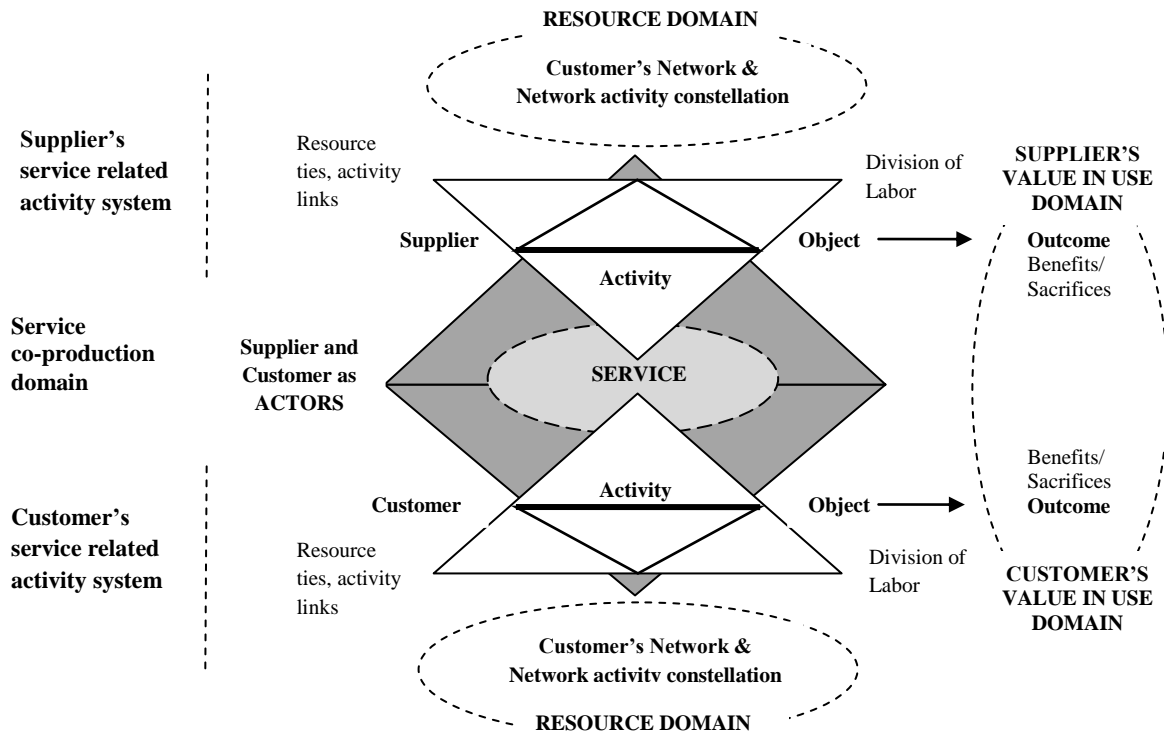


Figure 2. The research framework on value creation in service context

Similarly figure 2 depicts the supplier's and customer's service related activity systems (Engeström 1987). Both the supplier and the customer engage into the service activity in order to gain something (Grönroos, 2008; Gummesson 1995) i.e. to use the service as an *instrument* to serve a certain activity or activities launched towards certain *object(s)* to reach certain *outcome(s)*. These activities take place in and are part of the *customer's/supplier's networks and network level activity constellations*. *The division of labor* describes how the activity accumulates to the total network activity constellation and what its role in and for that is. Customer and supplier are linked through *the resource ties and activity links* to their networks and network level activity constellations (see Håkansson & Snehota 1995). These depicted activity systems are in a key position in order to understand value creation.

Value creation in business markets have traditionally been seen as the process of how suppliers create value for their customers and how customers perceive this value in a supplier's offering (e.g. Flint *et al.* 1997, Ulaga 2003). In a growing amount value has been started to be conceptualized as a result of co-creation by both service provider and customer (Lusch & Vargo 2006, Vargo & Lusch, 2004). This interpretation is faithful, for example, for the early work by the service marketing pioneers Grönroos (1978, 1991) and Gummesson (1979) and other studies in marketing. Value co-creation is defined as occurring at the intersection of the actions of the supplier and the customer either directly or as mediated by a product (see Grönroos 2006). However the views what the value co-creation means in the service setting can be seen to some extent contradictory.

Vargo and Lusch (2004; 2008) state that the supplier's contribution is limited to offering of value propositions and the customer is the value co-creator who creates and determines the value in its domain. This view is contradictory in a sense that if the customer creates the value in its own domain how it can be a co-creator, instead of being

defined as the value creator, the one and only (cf. Grönroos 2008). Grönroos and Helle (2010) view value also as being co-created but in their use the co-creation means that the both supplier and the customer create value that is being divided between them. In this sense basically both actors create value to themselves. Whereas Vargo and Lusch (2004) link the value heavily to customer's value-in-use notion and value creation as a process that produces this unique, phenomenological experience the notion of value by Grönroos and Helle (2010) refers to the concrete benefits that are created in the value co-creation process i.e. the service process. The latter view considers the value as a motivation and an outcome of the service process that is about joint production of value and its division between the parties. The joint production is viewed in terms of customer and supplier practices and their matching (Grönroos & Helle 2010).

The presented model (Figure 2) differs from the previous literature in a sense that it makes a clear distinction between the service production and value creation. These two processes are considered separate phenomena. The service production takes place in the interaction between the actors and is about co-production like suggested in the prior literature. Value is related to the activities in which the customer or supplier uses the service process and its outcomes as an instrument to facilitate its activities with a certain desired outcomes. On the right hand side the figure 2 depicts the customer's and supplier's *value-in-use domains*. In this sense the value is not co-created but rather created or perceived by the customer or the supplier solely. Hence the successful service production or co-production creates the basis for value and value creation: for the customer/supplier to use the service process to reach desired outcomes set for the actors other activities. However, the question still remains that if the value is not created in the service process, rather the service process facilitates the value creation, where value is then created?

The approaches such as the means-end approach, the experiential approach and the benefit-sacrifice approach have been presented as perspectives on value creation (see Golik Klanac 2008 for review). The first two of these are in line with the presented model (Figure 2) in terms that is also carries means-end logic in a sense that value is related to a successful use of a service as a means to reach certain desired outcomes and value is seen to emerge as an experiential phenomena from this. The evaluation of benefits and sacrifices can be seen as underpinning the value experience. (see e.g. Kothandaraman & Wilson 2001, Menon *et al.* 2005, Walter *et al.* 2001). That regarding, value is a subjective perception of the trade-off or net value (see Woodall 2003) between multiple *benefits* and *sacrifices*, relative to the net value of alternatives (e.g. de Chernatony *et al.* 2000, Komulainen *et al.* 2007, Möller & Törrönen 2003, Ulaga 2003, Walter *et al.* 2001, Zeithaml 1988).

As being a subjectively perceived, the dimensions of value and emphasis put on them alters from customer to customer. However certain common classifications have been presented that are of use in order to understand value dimensions and the principles of value creation. The product, the service or the relationships have all been presented as dimensions or elements that may be perceived valuable by the customer. Lindgreen and Wynstra (2005) categorize the existing research on value according to the value of goods and services and the value of relationships. A similar type of categorization is used by Möller (2006) who refers to "total value creation" that involves both exchange value and relationship value. Lapierre (2000) presents a categorization of value drivers with reference to the benefits and sacrifices. Benefits are divided into product-related (alternative solutions, product quality, and product customization), service-related (responsiveness, flexibility, reliability, and technical competence), and relationship-related benefits (supplier's image, trust, and supplier solidarity with customer). The

recognized sacrifices include product and service-related price, relationship-related time/effort/energy and conflict.

Although benefits and sacrifices are the basic elements of customer perceived value, the existing categories mainly focus on benefits. Interaction and network research has addressed the role of sacrifices at the relationship level. Several types of costs related to relationship development have been identified, e.g. relationship handling costs and relationship-specific investments (Walter *et al.* 2001). Moreover, adaptations can be seen as one form of sacrifices. Adaptations refer to all changes in the company's resource deployment made for the exchange partner, and those can occur in the technical, commercial, financial and social arenas (Walter & Ritter 2003, Håkansson 1982). Related to this, Blankenburg Holm *et al.* (1999) talk about mutual commitment that is "the willingness on the part of both partners to make short-term sacrifices to realize long-term benefits in the relationship". They state that building mutuality is a matter of exchanging incremental commitments in order to form a relationship that creates value for both partners.

Although benefit and sacrifice are interconnected components of customer perceived value, the trade-off between them is not as straightforward as could be assumed, i.e. one of benefits increasing value and sacrifices reducing it. Instead, value sub-elements may have a complex interaction in service value co-creation, since certain sacrifices can actually increase the perceived benefits. In other words sacrifices are required from both parties to co-produce the service and thus perceive value from the service, as well as from the relationship. Thus, it could be assumed that to maximize net value requires finding the best combination of sacrifices and benefits. Thus, sacrifices may actually increase the benefits and result in higher customer perceived value (e.g. Rokkan *et al.* 2003). This logic could be adapted from transaction cost analysis (TCA) to apply to a value discussion (see e.g. Gosh & John 1999), that has not yet explicitly and thoroughly addressed the issue.

METHODOLOGY

The case research strategy

The case study method enables an intensive study of the particular phenomenon. Case study is considered an appropriate method when the research area is only partly understood (Ghauri & Gronhaug 2002), when new perspectives are sought (Patton 1999) and when the contextual understanding of the phenomenon is important (Bonoma 1985). These conditions suit the present study very well since the purpose is to understand value creation in the service setting and emphasize different, previously unknown aspects of the phenomenon. The case study method is also suited to theory development research (Ghauri & Gronhaug 2002) as this study is.

In this study, the case refers to the retailers' value creation of an m-advertising service that is at the application phase of development. Single retailer's value creation as such is not considered as the case here, but the overall value creation mechanism that can be understood through the study of the retailers. In this study the research project provided an access to the empirical setting that is the qualitative real-life experiment, a setting that takes place outside a laboratory in a real environment.

In this study the qualitative real-life experiment is used to explore a new service that is at the application phase of development and is being tested through actual business organisations and consumers using it. The service in question was so new that it had not

yet been brought to market at the time of testing, and the retailers could not have used it anywhere else. Thus, an empirical setting was created that enabled the retailers to try a totally new, emerging (future) service. The present study aims to create an in-depth understanding of how customers perceive the value of a novel m-advertising service. Hence, the experiment is not seen as an experiment in the traditional sense, but the term instead refers here to the *specific empirical setting that was organised to try the emerging m-advertising service and to obtain information on how business customers (i.e. retailers) perceive value from this type of developing service in a real-life environment when using the service.*

Mobile advertising as a studied technology-intensive service

The use of wireless communication services, such as m-advertising, is becoming a global phenomenon since mobile phones are becoming an essential vehicle for business and personal communications (Lee *et al.* 2006). Technological convergence of mobile phones with audio, video, computing, telecommunications and television has made them an effective media for m-advertising (Kim & Jun 2008).

Many definitions of this new kind of advertising have been offered. For example, the Mobile Marketing Association (MMA) defines it as “a form of advertising that is communicated to the consumer/target via a handset” and it involves for example SMS (simple text message) and MMS (multimedia message) advertisements, mobile gaming advertisements, and mobile video advertisements (www.mmaglobal.com). Leppäniemi *et al.* (2004) suggest that m-advertising refers to “any paid message communicated by mobile media with the intent to influence the attitudes, intentions and behaviour of those addressed by the commercial messages”. Thus, m-advertising can be seen as advertising messages that are sent to and presented on mobile devices through a wireless network, and accordingly it is seen as one of the most promising business areas in the field of information technology (e.g. Kim & Jun 2008, Peters *et al.* 2007, Varshney & Vetter 2002).

Peters *et al.* (2007) suggest that despite the widely acknowledged benefits of m-advertising the studies focusing on this emerging field of business are still rare. Most studies have approached m-advertising in B2C contexts, an exception being the research of Takkula and Tähtinen (2006) that explores m-advertising as a part of B2B marketing communications. In addition, some studies can be found that have discussed it from the consumers’ (e.g. Lee *et al.* 2006, Tsang *et al.* 2004), retailers’ (e.g. Salo & Tähtinen 2005) or advertising agencies’ (e.g. Komulainen *et al.* 2005a) perspectives.

Due to the special characteristics of new mobile technologies, m-advertising can be used to deliver advertisements which are radically different from traditional ones (see e.g. Choi *et al.* 1997, Salo & Tähtinen 2005). Traditional advertising is primarily targeted at mass audiences, and relies predominantly on one-way mass communication. M-advertising can be tailored to individual customers, because it efficiently identifies the receiver of the message (Kim & Jun 2008). In addition, the mobile device allows m-advertising to be highly interactive as it is possible to engage consumers in discussions and transactions with the advertiser (Barwise & Strong 2002). M-advertising also has the potential to take account of the situation of the receiver, e.g. the time of day, weather, the customer’s mood and/or location (Pura 2005, Salo & Tähtinen 2005). Thus, m-advertising makes it possible to send unique, personalised and customized advertisements as well as to engage customers in discussions and transactions with the advertiser (Salo & Tähtinen 2005). In order to be successful, the use of m-advertising requires new ways of thinking and learning how it can best be applied.

Another special feature of an m-advertising service common to other types of mobile services as well (see Möller & Rajala 2007) is the need for different actors in the production of the service. The following figure 3 illustrates a network producing the m-advertising service, the business actors and their roles, and the value-creating exchanges among the actors.

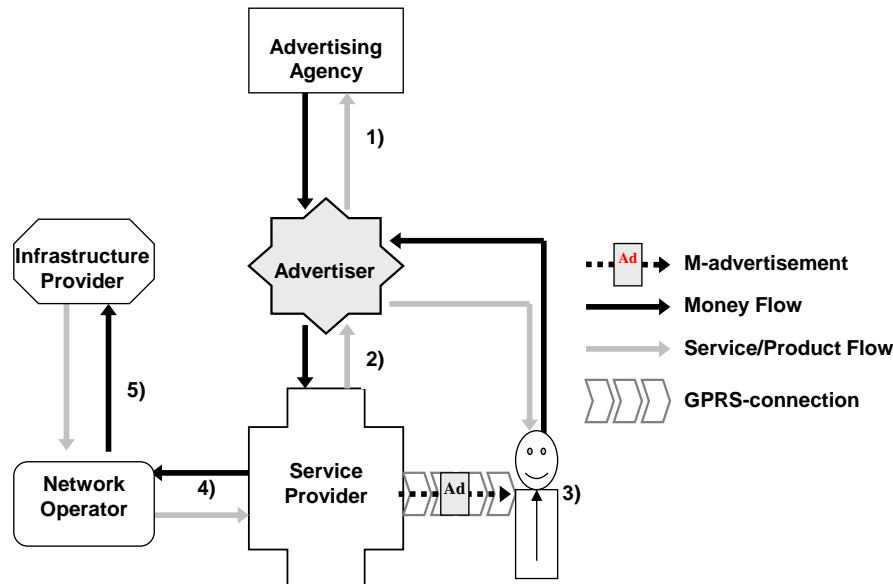


Figure 3 The empirical research setting

The network actors have different roles in service production (Heikkinen *et al.* 2007) and they have an impact on the final service offering and the value related to it. Although acknowledging the importance of the surrounding network, this study focuses on the value that is co-created in the relationship between the two focal actors of the network: the m-advertising service provider and its customer, i.e. the retailer as an m-advertiser. Specifically, attention is paid to the retailers' perceptions of the value they received from the m-advertising service within the focal relationship. However, it is also noted that the other network actors may have an impact, either directly or indirectly, on the value perceptions of the customer as well. Therefore changes in the network around the focal dyad may also influence value co-creation in it.

Specific features of emerging technology-intensive business service in a case study

The context of this study, technology-intensive business service has specific features that have an impact on value creation. These new features are related to 1) the special technological character that distinguishes it from more traditional types of services, 2) the novelty and developmental stage of the service, and 3) the network that is needed to produce this type of service (see also Komulainen *et al.* 2007). These features are naturally intertwined and partly overlapping but are discussed separately for purposes of clarity.

First, it follows from the technological character of the service that it is complicated to use and utilise effectively. Overcoming that complexity requires investments from the customer (see Curran & Meuter 2005). The customer needs to invest resources, i.e. time and effort to learn to use the service and to understand how value can be derived from it.

In a novel technology-intensive service setting, the service process typically takes place through a technical interface – meaning that the role of the customer increases and part of the service can in fact be self-service (see e.g. Dabholkar 1996). This makes the role and competencies of the customer integral to the success of the service process. Thus, it is a major challenge for the service provider to make the customer understand how to derive value from the new service. An even greater challenge is to convince the customer to invest often-scarce resources, given the many uncertainties related to emerging technological services.

The second characteristic of the emerging technology-intensive business service is the novelty and developmental phase of the service. Since technology-intensive business service represents a new business field involving many uncertainties (e.g. Möller & Rajala 2007) it follows that neither the service provider nor its customer has much experience of the type of service. The m-advertising service addressed in this study, for example, is entirely new for both parties, as is the relationship between them. Therefore, both are unsure of the value potential of the new kind of service which creates various uncertainties in relation to what might constitute maximum value from the service, how to co-create value efficiently in the relationship with the service provider, plus the whole network producing the service, and what aspects of the service are actually valuable for the final consumers.

Due to the rapid growth of new technologies and the rapid advances in the resulting technologies, the area of technology-intensive service is continuously being developed and updated with new features (e.g. Curran & Meuter 2005, Edvardsson 1997). Moreover, the m-advertising service explored in this study is only at the application phase of development and due to be commercially released in the future. Due to this developmental phase, the service and its features are in a state of flux. Hence, also the value related to the service takes different forms as the service is developed and as the customers learn to use and utilise it. Both the customer firm's relationship with the service provider and the surrounding network develop simultaneously. All these changing conditions have an influence on value creation. As a result, the value perceptions of the customer may change quite radically over time, both in relation to the service and in terms of relationships. This makes studying the temporality of values very rewarding in this kind of turbulent context.

The third specific feature of the emerging technology-intensive business service is the network that is needed to produce this kind of service. Due to the complexity and technological nature of the technology-intensive business service, individual companies cannot produce and market such services alone (Möller *et al.* 2005). Instead, a network of co-operating actors, e.g. technology providers, network operators, application providers, device manufacturers, and content providers is needed to co-operate in service production (see e.g. Kallio 2004). The network producing the service has an impact on the final service offering and the value related to it (see e.g. Möller & Törrönen 2003) determining the kind of features and options included with the final service and how the service functions. Therefore, understanding that the service is produced in the wider network is important as the network also influences, at least indirectly, the value perceptions of the customer firm.

To conclude, these three features characterizing emerging technology-intensive business service are naturally intertwined and partly overlapping. All the characteristics make the value creation in the context of emerging technology-intensive business service unpredictable and dynamic. Value creation takes different forms as the service is constantly developed and as the customers learn to use it. Careful exploration of the

context thus ensures a large variety of perceptions and changes will emerge over time, which is a prerequisite for effective theory development.

The data collection and analysis

Empirical data for the examination of value creation in m-advertising setting were obtained from the three experiments organized by a three-year (6/2003 - 5/2006) multidisciplinary research project, focusing on the development and testing of new technologies and business models for mobile multimedia services of the future. The primary data consist of thematic interviews and observations. The interview data consist of 55 interviews with the selected retailers who participated as m-advertisers in the field experiments and used the new m-advertising service. The selection of the interviewees was a multi-stage process which varied to some extent in each field experiment. The general idea was to interview as many diverse types of retailers as possible to get a multifaceted and extensive data representing a variety of views and experiences.

Observation data was collected first in the form of personal notes. Working as a researcher in the work group of the research project and being responsible for the practical organisation of m-advertising made it possible to get many different types of information. The notes were made while recruiting the retailers, training them (both in general training sessions and when visiting the retailers' premises and giving individual hands-on guidance) and solving their everyday problems during the field experiments. During the field experiments the researcher was also on duty in the project's field office where the retailers could come with any questions or comments. The researcher had access to field diaries that were kept during field experiments in the field office in order to record all the information concerning the experiments (e.g. contacts from the consumers and retailers using the services, information about the problem situations, technical issues, and feedback). The researcher also received all the e-mails that were sent between the project and individual retailers and answered their phone calls. All this provided an opportunity for observations and numerous informal discussions with the retailers, and thus aided in gradually developing the understanding of the research phenomenon, i.e. the retailers' perceptions of the value of an emerging technology-intensive business service. Since the observation data involves different types of formal and informal documents created over three years, its role in this research process was to support the creation of a general understanding of the research phenomenon. Thus, it was used as a complementary data and was not systematically analysed as the interviews were.

When analysing the interviews, the unit of analysis was the m-advertisers' representatives' perceptions of the value of the service. First interpretations of the interview data were based on multiple readings of each transcript in order to reveal meaningful insights (Miles & Huberman 1994: 430). Thereafter, the original verbatim interview data were imported to the QSR N'Vivo software. The software facilitated the storing and organisation of the text as well as coding, searching and retrieving text segments which stimulated the researchers' interaction with the data (see Dembkowski & Hanmer-Lloyd 1995). Thus, using QSR N'Vivo software enabled the classification of the data, making notes on it and hence contributed to systematic, transparent and reliable reporting.

RESULTS

The perceived benefits

Experience and learning

The retailers pointed out that it was very important for them to be able to test the service and to get to know how it works and its characteristics. Also the future dimension was involved in this sub-element – as the retailers felt that by getting to know what m-advertising currently was and how it worked at the time of testing, they could also get a sense of what it could become in the future.

“We are happy that we became acquainted with this service and how m-advertisements can be made.” Clothing store III 04

“This was a test and for us a purely encouraging experience. And since it was free of charge everything was just positive. [...] And we got the benefit that we now know what m-advertising is at the moment. Of course it is interesting to think what it will be for example in five years’ time when all the mobile phones have these fancy multimedia characteristics and so on.” Physiotherapist 05

“This was interesting because we have had a chance to explore mobile marketing in the real empirical environment and for us that was the most positive thing in this.” Mobile applications 04

In addition, it became clear from the data that the retailers felt developing their own skills and know-how was one significant benefit they gained from testing the new service. For them learning new things and strengthening the knowledge base of the firm was seen as a positive thing. Some thought that they had gained a direct advantage by learning to use m-advertising and they planned to use that knowledge later in their marketing. On the other hand, some thought they had gained benefits at the more general level by improving their understanding of some new opportunities in the field of marketing and simply by learning new things.

“Our goal for this (participating in the field experiment) was primarily to develop ourselves and to develop our business. And we succeeded in that, since this has brought us many new things. It is impossible even to try to count everything it has brought already and also when we think about the future... we are now many steps further on as we know better what we want to do with this thing in the future. [...] This has given us a lot of confidence that it is possible to develop our marketing in this direction (using m-advertising). And it is a really new and huge thing that we now have confidence to do it.” Gift and decoration shop I 05

“Learning comes with it. It is nice to do something new and a bit different and learn new things. And hopefully we can also utilise it later in something else.” Advertising agency IV 04

Commercial effectiveness

Commercial effectiveness refers to the increase in sales or profit that resulted from sending m-advertisements to potential customers. In other words, it refers to the number of customers who see the m-advertisement, acknowledge the retailer, enter the shop and make a purchase as a result.

“From my, i.e. an entrepreneur’s, viewpoint I measure effectiveness through contact prices, number of contacts. Then the real measure of the effectiveness of advertising is cash.” Clothing store II 03

In general, retailers did not report great commercial success from their m-advertising campaigns and said that they did not notice much change in cashflow. However, there were retailers who were very satisfied with this aspect and mentioned that they actually had new customers and noted the commercial effectiveness of using the m-advertising service.

“It surpassed all expectations concerning what we invested in this and what we got from it. This was a wonderful thing, even a stunning thing. During this short test period we got new customers, which was more than we expected from the whole summer. And those customers we got were all enlightened ones. So there were many advantages and this surpassed our expectations at all levels. So I’m more than satisfied.” Gift and decoration shop I 05

“If we think that 150-200 m-advertisements were sent and approximately five customers came to our shop based on those advertisements. How many percent is it? I think it was quite good! In general, if you think of contacts per ad, it is usually like one or at the most two percent that react to it. Compared to that, this was pretty fine.” Health store 05

The interviews revealed that the retailers did not have monitoring systems to assess how effective the m-advertising had actually been. Therefore their opinions were mainly based on rough estimations or a general feeling of how many customers were attracted by m-advertisements and made a purchase from their shop.

“Maybe we should have followed it more accurately — asked the customers where they had got this information and so on, but unfortunately we did not. Of course very few customers say that ‘Yeah, I was participating in this kind of test and got your m-advertisement’. But I think that some came here to our office because of the m-advertisement.” Travel agency I 04

Useful service features

Useful service features again refer to the group of service-related features that the retailers perceived as important and useful. In other words, specific service features are those characteristics that are specific to the m-advertising service and are closely related to the service itself and its usage, and are therefore discussed as one group of realized benefit sub-elements.

Generally, retailers pointed out very similar important features of the m-advertising service they felt useful and beneficial, although the emphasis depended on the retailer and their personal opinions. The ability to tailor a message based on the personal information of the receivers of the m-advertising was emphasized in the interviews, since this enabled the firm to reach the specific group of customers it was interested in. In addition, personalizing the m-advertisement according to the information gathered from the recipient let the retailers send messages that were seen as more personal and therefore also more attractive and effective. Thus, the ability to reach a certain customer and to send personally tailored messages was a new feature that fascinated retailers since they saw it as providing an opportunity to develop more effective advertising campaigns and thus hopefully increase their sales.

“I found these basic things very useful; you can personalize it and you can choose the receiver and time you send it. That is probably the most important characteristic of this mobile thing. That the message is not sent to just anybody but depends on the customer.” Advertising agency IV 04

M-advertising also enabled the retailers to specify the time the messages were sent. This gave the retailer a whole new range of options to plan their advertising and improve its efficiency, for example, by timing the m-advertising campaign for the most suitable moment.

“It was a positive point that we could make a campaign very fast and target it extremely accurately. It has... because there is a possibility to collect information about the receivers and what they are interested in and these kinds of things, we can target it really well to the right people. And the speed, that is important. You can build a one-day campaign if you want. That is brilliant.” Health store 04

Closely related to the tailoring and personalization some retailers highlighted the fact the m-advertising engenders a capability to follow and measure the effectiveness of certain m-advertisements. If the retailer knew who had received the message they could easily find out if the message had attracted the customer, which in turn would permit them to create more attractive and effective m-advertisements in the future.

“We could target the m-advertisements and we could also measure it at some level, because we could follow the specific customers who had received the m-advertisements. At the moment the situation with advertising is poor; if you have an advert in a certain local newspaper and you ask the customer where s/he has seen it the answer is probably some other newspaper. So these print mediums are mixed in the minds of the consumers but with this (m-advertising) you can direct it straight to the customer.” Telecommunications company 04

In addition to the above service features, technical functionality and ease of use were also reported as helpful features of the service. Some pointed out that they were very happy with the service since it was functioning well and was easy to use, whereas some had had difficulties with the service. However, this depended to some degree on the year the retailer tested the service. In the first field experiment there were more technical problems than in the third field experiment, because by that stage time had been spent on developing and improving the service. Moreover, the technical skills and equipment of the retailers varied greatly, which also influenced their perceptions.

“It was really good when it started to function and all the tools were functioning well. It was easy to use and simple, it worked just fine.” Health store 05

As a whole, the service features our retailers identified as being useful incorporate quite a varied group of m-advertising service features that forms a realized value. The connecting factor between them is that the features discussed are specific to the m-advertising service examined in this study and were pointed out by the retailers as aspects that increased the realized value.

Service support

Service support refers to the supporting activities from the service provider to individual retailers. In other words, how the service provider helped, assisted and enabled the retailers' usage of the new kind of service. It includes, for example, technical support and backup, adequate briefing and instructions from the service provider concerning the use of the m-advertising service.

Generally, the personal assistance and the instructions offered by the service provider were appreciated. For some retailers the personal support was extremely important in helping them get started with the service. For some it was enough to know that in the case of any problems they could have technical assistance from the service provider.

“I was so surprised that I did not feel like a fossil but I got so quickly into it! But I believe it was because you had such a good and qualified person who introduced it (m-advertising service) and showed how to use it and told what benefits it will bring to us.” Travel agency I 04

“Information was very fluent since we got numerous e-mails and phone calls and that kind of stuff. And somebody even came to show us here on-the-spot how to use the mobile tool.” Leather goods store 05

In contrast, there were also retailers who were very autonomous and self-educated and did not need any personal assistance from the service provider. They were satisfied with the written instructions and did not need any further support. However, it was emphasized in the interviews that getting all the technical documents and instructions was helpful in using the new service.

“The tools and the documentation we got were adequate for us. With this know-how and skill plus that group of instructions we were given... that was enough.” Mobile applications 04

The retailers also provided positive feedback on the pro-activity of the service support – generally feeling that the service provider had been helpful and appreciating the support received. In addition, the retailers were pleased to know that they could contact the service provider with any questions and that technical support was continuously available, and not limited to the beginning of the testing.

“I was very satisfied with the help we got. I found it great that somebody contacted me and asked “is everything ok?” and offered information on, for example, what type of files were needed and so on. They did many things for me because our own resources were so limited.” Clothing store I 05

“I think the support from the project has been... Because you have known all along that you can call if you have any technical problems. So, I think the support has been very good and worked well.” Gift and decoration shop I 05

Interaction

Interaction refers to the communication, co-operation and interaction between the retailer and the service provider that facilitated the customer in its activities. The main difference compared to service support is that service support is more technically oriented and includes the evaluation of the sufficiency of the instructions, technical backup and other technical aspects, whereas interaction refers to the co-operation and the relationship between the two actors providing benefits for the customer.

First, it was reported in the interviews that the flow of information from the service provider to the retailer had worked very well. This involved for example the weekly/monthly reports concerning the current issues of the field experiments and the project in general (e.g. how many m-advertisements were sent, published research reports, feedback). It also refers to the contacts between the retailer and the service provider, i.e. how easy and fast it was to get information from the service provider and how the service provider reacted to contact from the retailer.

“We got information very nicely. If somebody complains about it he is wrong. I think the information flow from the service provider to us was very fluent. And if we had something to ask or anything like that... Well, I think it worked in both ways really well.” Travel agency I 04

Retailers were very pleased that the service provider was proactive in contacting them – enquiring as to their progress and whether they needed anything. Retailers also appreciated the communication being two-way, in that they felt comfortable with contacting the service provider with any questions or comments.

“The interaction between us and the service provider was great. Clearly the project had paid attention to it and it worked well. Because it often happens that the entrepreneur is busy and might let it slide like ‘We have these other duties and have no time for m-advertising’. But then somebody came from the project and said ‘Good afternoon, I came here to see how you are doing!’ and you remembered that you need to update those m-advertisements.” Gift and decoration shop I 04

Finally, it was indicated in the interviews that the successful co-operation could even compensate for other (potential) defects in the field experiments. Therefore, by investing properly in the interaction, the service provider could increase the satisfaction of the retailers.

“We did not get any sales but the opportunity to analyze this (m-advertising) with the researchers and to get feedback from the field experiments... that makes it all worth it.” Mobile applications 04

Positive company image

Positive company image refers here to the image the firm obtained from using the new m-advertising service. It is the mental picture of the ambitious firm that is willing to continuously develop and to try new things to satisfy its customers more than its competitors.

“I believe it (participating in the field experiment) was really good for our image. I mean that customers saw it too [...] and they saw that we are involved in this. That is very positive. In that sense taking part was really useful to us.” Science centre 05

Retailers emphasized that it was essential that the field experiments were publicized in the media – the local newspapers and even national television. They felt that it was good for their image to participate in the testing of the new service that gained a lot of public attention. This visibility was also supported by the service provider offering the participating firms stickers to be placed on their front doors or cash desks that announced: “We are participating as m-advertisers in the Rotuaari project”. Firms were also provided with information leaflets that included information about the project and could be distributed to their retail customers.

“We got the communicational and high-tech value from this by telling our customers that we are using this (m-advertising) [...] So, I think that it is very positive thing to our company image and in every way that we were involved. And to this city as well. To get the publicity. It has been nicely reported in the newspapers what is going on here. So it is very positive to us, surely.” Travel agency I 04

“It (the field experiment) had a lot of publicity and it has not been bad publicity at all. So, I think that it has given us good PR to be involved in this kind of thing. And also the involvement of the city, university and the Downtown Association. Being

this kind of pacemaker gives goodwill and I think that is the most essential thing at this moment.” Clothing store III 03

It became evident from the interviews that although retailers did not perceive much commercial utility from being involved in the field experiments and testing m-advertising, they still felt that a positive company image and other “non-monetary” aspects were important to them and made it worth participating. Also those who were satisfied with the profit they gained from using m-advertising emphasized those other aspects as well.

Customer Realized sacrifices

Realized sacrifices refer to those investments the retailers made during the field experiment when they used m-advertising, for example in planning the campaign or designing and implementing the m-advertisements. They are placed into two categories that reveal the sources of sacrifices: monetary and non-monetary factors.

Non-monetary factors

The non-monetary aspects consisted of the time used, the learning required and effort made to use the service. Generally the retailers perceived time as the main sacrifice. The time was expressed either as hours used by the entrepreneur or the number of people involved in designing and implementing the m-advertisements. The estimates of the time used ranged widely, from 15 minutes to three working days (a working day being about eight hours). Retailers also pointed out that in the first phase when they started to familiarize themselves with and were learning to use m-advertising, it took a good deal of their time, but as they learned little by little to use the service it became much easier and faster. Thus, after learning to use the service the time required to make new m-advertisements decreased significantly.

“Well, making the first m-advertisements took a while. To get it into the right size and shape so it looked good in the final version. But once we had done it... If we think about time I guess it took altogether like two or three hours from me and Ulla to make one m-advertisement from the planning to final version. So I think it was very fast.” Telecommunications company 04

The interview data indicates that m-advertising required varying amounts of effort from different retailers. Effort here refers to all investments or use of the firm’s resources. Retailers’ perceptions of what is a reasonable and acceptable amount of non-monetary sacrifice also varied significantly. Some retailers had a large number of employees involved in the planning of m-advertising but did not consider that a big investment. To some of them, even the need to sit down to create the m-advertisement or the need for a couple of phone calls during service use was too much, as taking care of the daily business occupied all of their time. In such cases, non-routine tasks were easily put aside, no matter how fascinating.

“Well, it did not take much (resources) because we did not have any. And as I said our investment to this was quite small. We made the one m-advertisement and that was it. It was because there were those passwords and we were told to call somewhere to get it and it was so unclear. So when it gets like that and you do not have time, then you just drop it.” Nightclub 03

Time, learning and effort are very closely related to each other and actually represent different sides of the non-monetary investments the retailers reported they had made in m-advertising.

Monetary factors

The use of the service was free of charge since the service was only at the application stage. Therefore, the retailers did not need to make any direct monetary investments when they were testing m-advertising. However, some retailers also invested money in m-advertising by hiring an advertising agency to design and implement the m-advertisements. Some were too busy to take care of m-advertising by themselves and therefore outsourced the task to an agency, while some were also actively involved in the planning with their advertising agency.

“Well, it took us a lot of time and cigarettes to plan it (m-advertising) plus few thousand euros for the advertising agency. In that sense we used too much resource compared to what we got from it.” Co-operative 04

In relation to the amount of sacrifices made during the field experiments, some of the retailers were satisfied and felt that it was worth it. On the other hand, some were disappointed with the service provider since they felt that they had invested too much (in the form of time, learning, effort and/or money) in relation to their return. Finally, some were disappointed with themselves because they thought they had not invested sufficient resources in the unique opportunity to test a new service.

Relation to net value of an alternative

Retailers compared m-advertising to the other advertising media and perceived many advantages in this new way of advertising. M-advertising was reported to be fast, wide-reaching, personal and easy to use compared to other media. Interviewees gave several examples suggesting where m-advertising can be seen as superior to any other medium, for instance:

“It was nice that it allowed us to personalize the message. And what I liked was the possibility to make the m-advertisements according to the weather. To say that ‘Hey, it is raining, come to the Science Centre because there is nothing to do outside just now!’ Or something like that. And the interactivity or how do you say it... The possibility to react really fast compared to newspaper advertising where you have to make the ad much earlier. Like ‘Okay, we want to advertise next Wednesday’ but how do you know beforehand what is going on then?” Science centre 05

Also the pricing of m-advertising was perceived as an advantage compared to other advertising media. When comparing the price of sending m-advertisements to the numbers of customers the messages reach, and against other media, m-advertising produced a positive result. In other words, retailers saw that due to its ability to effectively reach the receivers m-advertising was inexpensive and therefore a good option compared to other advertising media. What should be noted, however, is that the assessment of the price of m-advertising was based on the retailer’s own estimation, since sending m-advertisements during the field experiments was free of charge for the participating retailers.

“Clearly the advantage of the m-advertising is its price. It is pretty inexpensive per customer to get the message through. When we calculate how many euros this message costs per customer... When we use m-advertising we can define the receiver very accurately. It is extremely important that we do not send the ad promoting a male stripper show to a 60-year old man. So our money goes to waste if we put the ad into the local newspaper because 60 % of people reading that newspaper are adults, older men and so on.” Nightclub and restaurant 05

DISCUSSION

Firstly, the study points attention to the fuzzy and contradictory relationship between the value creation and service production processes as presented in the current literature. As more and more services today are interactive, technology-intensive and embedded in relationships (Matthing *et al.* 2004) this might have caused that the service production and value creation concepts have come close to each other and partly as overlapping conceptualizations of the interaction between the supplier and customer in service context. However we suggest keeping these two processes as separate entities as depicted in the framework (Figure 2). The empirical study depicted the value and value creation in terms of customer’s benefits and sacrifices and shows that the service production facilitated or underpinned the perceiving of value and value creation in the customer’s domain. The various subcategories of the benefits and sacrifices and different opinions related to them show that different customer’s perceived different aspects of the service and service production producing value to them. This is a natural implication that derives from the view of value or benefits and sacrifices as an outcome of the instrumental use of the service in customer’s activities. Integrated to different activities and activity systems the gained benefits and sacrifices were different. On this basis we tune the research framework in Figure 4.

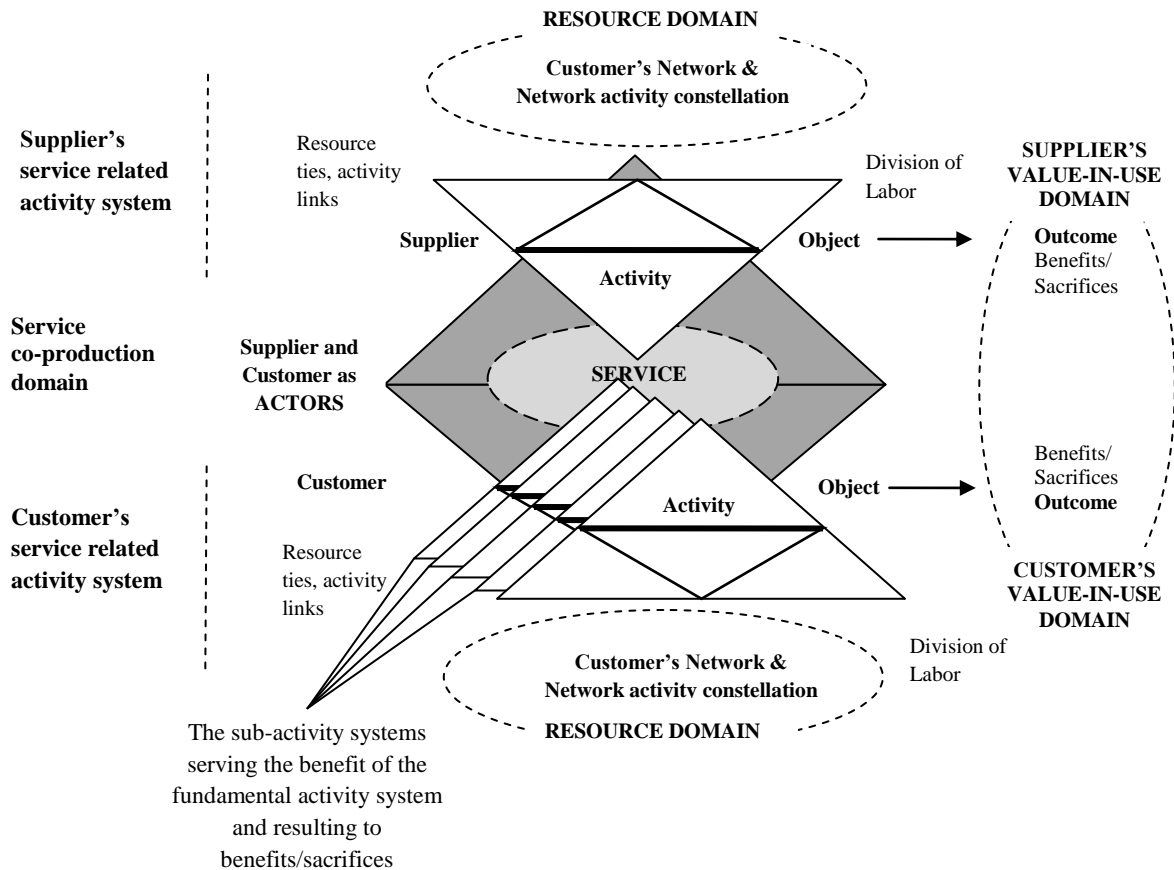


Figure 4 An empirically grounded model on value creation in service context

The figure 4 adds the sub-activity systems to the customer's value-creation domain. This refers to the different uses in which the service was taken and the benefits and sacrifices this produced to the whole. The empirical study clearly demonstrated the evolving interaction between the service production and value creation. The more skillful and experienced the both the supplier and customer become the more various were the potential targets the service were used and thus the value gained.

To conclude, we may state that the content of the value creation process comprise of the use of the service in the customer's activities in a way that it produces more benefits than sacrifices and perceiving this difference. In this sense value is created by the customer only. The customer-supplier interaction in the service production and the customer's activity systems forms the context for the value creation. The current version of the paper includes the preliminary analysis of the value and value creation from the customer viewpoint. In the next phase the researchers will integrate the analysis of the supplier side to the study in order to propose a dyadic model and analysis of the value creation in the network context with reference the research framework.

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