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Customer Value in E-Service: Conceptual Foundation and Empirical Evidence

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Key words: Customer Value, E-Service, Marketing Theory, Internet, Mobile

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FOREWORD

In the 1990s, when I was still an undergraduate, service quality, customer satisfaction and gaining customer loyalty through customer relationship management dominated discussions among marketing scholars, in particular in the field of service marketing. It was expected that if customers experienced consistently high quality in services, they would also become highly satisfied and thereby loyal. Loyalty in turn was expected to lead to several positive outcomes for firms (Storbacka, Strandvik and Grönroos, 1994; Reichheld, 1996), as loyal customers would buy additional services, spread positive word-of-mouth and possibly be prepared to pay more for the service (Zeithaml et al. 1996). This so called service-profit chain, where internal service quality, employee satisfaction, and productivity were expected to lead to external service value, satisfaction and loyalty, and through these, result in financial outcomes in terms of revenue growth and profitability was much researched (e.g. Anderson and Mittal, 2000; Heskett, Jones, Loveman, Sasser and Schlesinger, 1994; 2008; Loveman, 1998).

The additional concept of customer perceived value attracted attention because it was proposed to be a better measure of firm performance in the eyes of the customer than quality and/or satisfaction for three reasons: 1) it reflects the extent to which an object (be it goods, services or other offerings) is preferred in comparison to alternatives, 2) it mirrors customer perceptions on many levels, including both utilitarian and hedonic aspects of consumption, and 3) it typically includes a sacrifice component unlike the other related concepts. Much attention was given to the identification of categories of value a customer might gain through consumption, and how these could be measured (e.g. Holbrook, 1994; Sheth, Newman and Gross, 1991a,b; Sweeney and Soutar, 2001). Some authors (Parasuraman and Grewal, 2000) suggested a quality-value-loyalty chain where quality evaluations together with price lead to perceived value, which in turn would result in loyalty (see also Johnson, Herrmann and Huber, 2006; Sirdeshmukh, Singh and Sabol, 2002). Simultaneously, however, the then predominant view of value being generated by the firms within their value production processes became questioned, and alternative views of value as co-created (e.g. Prahalad and Rangaswamy, 2000;2004) or embedded in customers' use processes were put forth (e.g. Normann and Ramirez, 1993; Wikström, 1996).

In particular, after the introduction of the so called service-dominant logic (Vargo and Lusch, 2004a), the interest of researchers is turning increasingly towards studying value creation between customers and firms (co-creation), or value creation by customers alone (Heinonen, Strandvik, Mickelsson, Edvardsson, Sundström, and Andersson, 2010; Grönroos, 2008). At the same time, multiple research ontologies co-exist on customer value as it is conceptualised as a phenomenological concept (Vargo and Lusch, 2008a), as a cognitive trade-off evaluation (Chang, Wang and Yang, 2009; Zeithaml 1988), as a means-end chain (Gutman, 1982), or as an experience (Holbrook, 2006).

The coexistence of multiple streams in traditional value literature makes research endeavours challenging in new areas, in this case with e-services. E-services proliferated just after the turn of the new millennium, and consequently e-service value research is a young and developing research area. The shifting focus of value research and the current state of e-service research give this dissertation its mandate

to deliberate on the conceptual foundations of value literature, and to investigate how customers experience value in the context of e-services.

Due to the shift in focus from satisfaction to value, the original aim of this dissertation, understanding customers' e-service quality perceptions and their impact on customer trust, satisfaction and loyalty towards a web site or a service provider, has been replaced with the aim of understanding the larger theme of customer value. The reader may view the articles as reflections of research interests of the time. Simultaneously, the dissertation gives examples on how the perspective taken impacts research.

1   INTRODUCTION

> Mirror, mirror on the wall, who is the fairest fair of all?

The question of being 'the fairest fair of all' in the customers' eyes is the one intriguing firms, and it captures the essence of customer value. Customer value is proposed to reflect a customer's preference for a certain provider, which produces a reflection back to the firm - albeit a monetary rather than a visual one.

Maximising value for the customer is increasingly attracting attention among marketing scholars (Grönroos, 2008; Vargo and Lusch, 2006; 2008). Value for the customer, hereafter referred to as customer value, is a term used to depict the position of an offering against alternative offerings, where the customer is proposed to select the offering with the highest value, i.e. the superior offering (Russo and Carlson, 2002), or form preferences that are context-dependent (Holbrook, 1994).

The increasing importance of value is evident in the way that the creation of customer value is pinpointed as *the ultimate goal* for firms along with shareholder value (Bolton, Grewal and Levy, 2007). It is also evident in models of customer loyalty that suggest that customer perceived value is central for repurchase intentions (e.g. Johnson et al. 2006; Sirdeshmukh et al. 2002). As Slater and Narver (1994) postulate: "where competitive advantage was once based on structural characteristics such as market power, economies of scale, or a broad product line, the emphasis today has shifted to capabilities that enable a business to consistently deliver superior value to its customers" (p. 22).

The relevance of customer value is based on a circular logic, where customer value is expected to make customers more loyal, purchase more products and influence other customers' purchase behaviour, all of which lead to improved profits for the firm (McDougall & Levesque 2000; Storbacka et al., 1994, Reichheld, 1996; Zeithaml et al., 1996). For e-commerce, the same rules are expected to apply (Reichheld and Schefter, 2000; Reichheld, Markey and Hopton, 2000). Consequently, customer value is seen as a necessity for firms' existence, both offline and online.

Marketing provides many competing answers as to what it is that customers value, and how customer value can be conceptualised. These answers are bound to the basic axioms regarding how the human mind works and in what type of behaviours customers engage in. The quintessential dilemma in value research is this multiplicity of competing theories. According to researchers, customer value is one of the most misused terms (Leszinki and Marn, 1997), and value research is "an area of continuing ambiguity...with no clear theoretical anchor" (Woodall, 2003), where there is "ambiguity with respect to the definition, dimensions, and measurement of perceived value" (Sánchez-Fernández and Iniesta-Bonillo, 2007: 440).

In particular, two competing assumptions of customer behaviour seem to underlie the research on value. On one hand, research on the customer value of products is built largely on the notion that individual decision-making is a goal driven process during which customers find, evaluate, and choose among alternatives (see e.g. Russo and Carlson, 2002). Accordingly, customers are supposed to maximise value, and do this mainly by choosing the best possible offering (Addis and Podestà, 2005). On the other hand, critics have discarded this rationality of individual decision making (e.g. Holbrook and Hirschman, 1982). They have reproached modern marketing for seeing individuals as rational decision makers, i.e. "self-conscious, and committed to a reasoned and reasonable goal or end" (Firat and Schultz, 1997, p. 187). Several newer marketing streams including 'Relationship marketing', 'IMP group', but also 'Postmodernism' and 'Service-Dominant (S-D) logic' (Vargo and Lusch,

2004, 2006, 2008a) have criticised this view of the customer as a passive receiver and selector of firm produced value (Addis and Podestà, 2005).

The S-D logic, which has attracted much attention among marketing academia, has accentuated the importance of value, since it is proposed to be the key to understanding exchange (Vargo and Lusch, 2008b), and exchange in turn lies in the core of marketing (i.e. marketing is needed to the extent exchanges take place in markets).

The proposed shift from a 'goods-logic' to 'service logic' adds a twist to value discussion. 'A service logic' views services and goods on a par, since both are proposed to, through their use, contribute to consumer experiences (Schembri, 2006). This shift in thinking changes the focus of research from the characteristics of service(s) to customers' use experiences. While promoting a service-based logic in marketing, Vargo and Lusch (2008b) point out "[adopting service logic] requires shifting the unit of analysis from products [and services] to value creation" (p.257).

A corresponding change in research focus would then require a shift from "producing a perfect offering" to studying "how customers experience the offering", and what the firm can do to improve that experience. From a managerial perspective, then, the focus should lie on understanding customers' everyday life and experiences within that life sphere. This question is likewise applicable to e-services, which is the study context of this dissertation.

1.1. Value in electronic services

Broadly speaking, electronic services (e-services) refer to service delivery with the help of new media (Voss, 2003), and include services delivered over the Internet, m-services and automated machine-based services. They are often referred to as self-service technologies (e.g. Meuter, Ostrom, Roundtree and Bitner, 2000), because customers typically take on a more prominent role in the service production of e-services than of traditional services.

On the Internet, any site that allows customers and/or other stakeholders to access the site and its content is potentially a service platform. As most businesses in developed markets have a web site, they are offering at least a simple, information-based e-service. This development is consistent with the broader premise "All businesses are service businesses to some degree" (Berry, Seiders and Grewal, 2002, p. 1), meaning that business in general entails service components such as delivery, maintenance, and billing (Grönroos, 2007). In addition, the Internet and other electronic platforms are perfect for the provision of different facilitating services such as e-payments. E-services are also becoming more prominent at state and municipality level (Cap Gemini Ernst & Young, 2004), as more and more services directed at citizens are becoming electronic. It can be concluded that as e-services are becoming a prevalent part of business, have a wide impact on how business can be conducted, and whose use may offer considerable benefits for both customers and companies (e.g. Grewal, Lindsey-Mullikin and Munger, 2003), studying customer value in e-services is pivotal.

For managers, understanding how customers experience and value e-services (Parasuraman and Grewal, 2000) is necessary because monitoring customer value makes it possible to direct resources more efficiently and design/improve e-service offerings in ways that generate value for the customer. Customer value perceptions are expected to be particularly important in e-services, because customers may have to use these services without the opportunity to ask for help from personnel, or efficiently signal their discontent, which may easily result in disrupted customer relationships. In addition, technology is proposed to have a significant impact on buyer-seller interactions (Grewal et al. 2003; Parasuraman and Grewal, 2000) due to competitive intensity, decreased information asymmetry between customers and firms, and the opportunities for one-to-one marketing. In other words,

customers have access to a broader array of offerings, and are able to compare prices and product features online, and may come closer to the firm if the one-to-one communication succeeds (Anderson and Srinivasan, 2003; Sharma and Sheth, 2004).

So far, much attention has been given to studying customer perceptions of online shopping sites (e.g. Mathwick, Malhotra and Rigdon, 2001; 2002; Parasuraman, Zeithaml and Malhotra, 2005; Jeong, Fiore, Niehm and Lorenz, 2009), whilst content-based web sites, for instance informational sites, have received far less attention. Also, e-service research has tended to study service evaluations and their impact on value, satisfaction and loyalty (e.g. Zeithaml, Parasuraman and Malhotra, 2000ab, 2002), rather than to investigate service experiences. Consequently, the areas that require more research include both content-based services, but also the experience sphere of the customers.

In this dissertation, content-based e-services (hereafter referred to as e-services) are defined as electronic content and transaction services that are accessed and/or delivered via an electronic interface such as the Internet or a mobile handheld device (PDA, mobile, cellular or smart phone, GPS) based on the interaction/transaction between an organisation and a customer. E-services are characterised by customers interacting with an electronic interface, and the face-to-face interaction between customer and the service provider typically has a lesser role than in services provided face-to-face.

1.2. Problem definition

There are four main issues, or problems within current research, that form of the core of this dissertation.

Firstly, within e-services research, most studies have investigated either e-retailing or consumer-to-consumer services, whereas relatively little attention has been given to pure content-based offerings, which do not typically include the exchange of a tangible product. Consequently, the focus of this dissertation is on firm created, content-based e-services, since this type of e-service is still under-researched.

Secondly, despite the proposed shift in the unit analysis from products/services to experiences, e-service literature is still largely focused on service characteristics since most research is done on the perceived characteristics of web sites. The literature that does study outcomes of e-service use tends to oversimplify customer experiences by measuring concepts such as usefulness and ease-of-use. Consequently, there is a need to investigate customer perceptions of value-in-use in e-services (Heinonen and Strandvik, 2009).

Thirdly, due to the multiplicity with which value has been conceptualised in the more mature traditional service setting, it is worthwhile to subject e-service value to scrutiny in order to see which research streams it has taken after and to identify eventual gaps in the current state-of-the-art research.

Finally, an issue that is related to value literature in general is the role of 'customer value' in the new 'service logic' world – more specifically, as the service logic puts emphasis on value co-creation, how does 'customer value' fit into the picture? The central premises offered by the 'S-D logic' give some insight into this aspect: value is proposed to be co-created, but at the same time individually determined (Vargo and Lusch, 2008a). However, this relationship requires more elaboration to guide further studies in e-services.

1.3. Purpose of the study

The aim of this doctoral thesis is to investigate the underpinnings of customer value in content-based e-services. This aim is fulfilled with three steps (a) critically analysing previous offline value literature to deepen the understanding of the value concept, (b) reviewing literature on e-service value, (c) studying e-service value empirically.

1.3.1. Research scope

This doctoral dissertation contains four individual papers. The four papers are the result of a long-term research process, and therefore they also reflect a maturation process regarding how customer value is defined.

The first paper studies value indirectly in terms of customers' evaluations of web site quality, and how these impact customer satisfaction and loyalty. The second paper studies the role of firm provided e-services (their content, process and 'use configurations', i.e. the combination of services that customers use) as resources in customer value creation processes and how these impact customers' value evaluations in terms of value as a benefit/sacrifice evaluation. The third paper collects customer-reported experiences in terms of critical incidents where the customers have perceived a service as particularly valuable. Based on these experiences, a number of value outcomes and situational factors are identified. The last paper (paper 4) zooms out and critically evaluates value research in the offline context, where most of the existent value literature is set. Thus, it returns to the basic question of what value is and how it has been researched in the past.

The papers are entitled:

1) Customer Loyalty to Content-Based Web Sites: The Case of an Online Health Care Service (*0.7). Published in Journal of Services Marketing (2004).

2) E-services as Resources in Customer Value Creation: A Service Logic Approach (*1). Published in Managing Service Quality (2010).

3) Context and Mobile Services' Value-in-Use (*0.6)

4) Value Creation Processes and Value Outcomes in Marketing Theory – Strangers or Siblings? (*1)

Figures in parenthesis correspond to the division of work between the focal author and co-authors (a detailed report is presented in appendix 1). The four papers are listed with full details in Appendix 2. Papers 1 and 2 have been published. Papers 3 and 4 are unpublished papers.

1.3.2. Approach taken to value

Paper 1 presents a traditional view on how customers are expected to evaluate online services. According to this view, customers evaluate web site characteristics in terms of their quality, such as the quality of the user interface, provider responsiveness, security of site use, and need fulfilment. The last one, need fulfilment, reflects the degree to which an individual customer feels that a service fulfils one's personal needs, and whether the person feels that the service is targeted to users like him/her. Need fulfilment may be particularly relevant for understanding the value of a service to a customer. The quality evaluations probed for can be viewed as customers' assessments of a site/provider characteristic, and they can be perceived as benefits or as sacrifices. For instance, security can be perceived as a benefit if it is

evaluated as high and a sacrifice if it is evaluated as low. Previous research has often treated quality as an antecedent of value (e.g. Sweeney, Soutar and Johnson, 1999; Cronin, Brady and Hult, 2000). Thus, the article indirectly adds to the body of research investigating customer value, although it does not directly measure customers' value perceptions. The study context is a content-based web site, more specifically a health care site.

Paper 2 investigates how the services offered on the health care site (same as the one in paper 1) function as resource inputs for customer value creation, and combines this information with customers' value perceptions of the site. The paper investigates customers' value-in-use from two points. Firstly, if an e-service consists of several services (as typically is the case with a web site) then the evaluations of these services may have differential impacts on customer value perceptions. Secondly, it might be that the use of some service configurations results in higher value than the use of others, depending on how the services (as resources) complement each other. The paper shows that various services and service configurations had differential impacts on customer value perceptions, which highlights the need to study evaluations and use of the various services. Customer value outcomes were measured in terms of customer assessments of the benefit/sacrifice outcome (Zeithaml, 1988).

Article 3 explores value as embedded in the use experiences of mobile services, where the context of use is an important factor that influences the perceived value outcomes in terms of the experience of using a service (Holbrook and Corfman, 1985; Woodruff and Gardial, 1996). Consequently, the paper identifies a number of value categories, and differentiates between context and in-use value.

Finally, article 4 concentrates on the conceptual foundations of value creation and proposes value creation to consist of value creation process and value outcome determination by customers.

Figure 1 illustrates the approach to value taken in the papers.
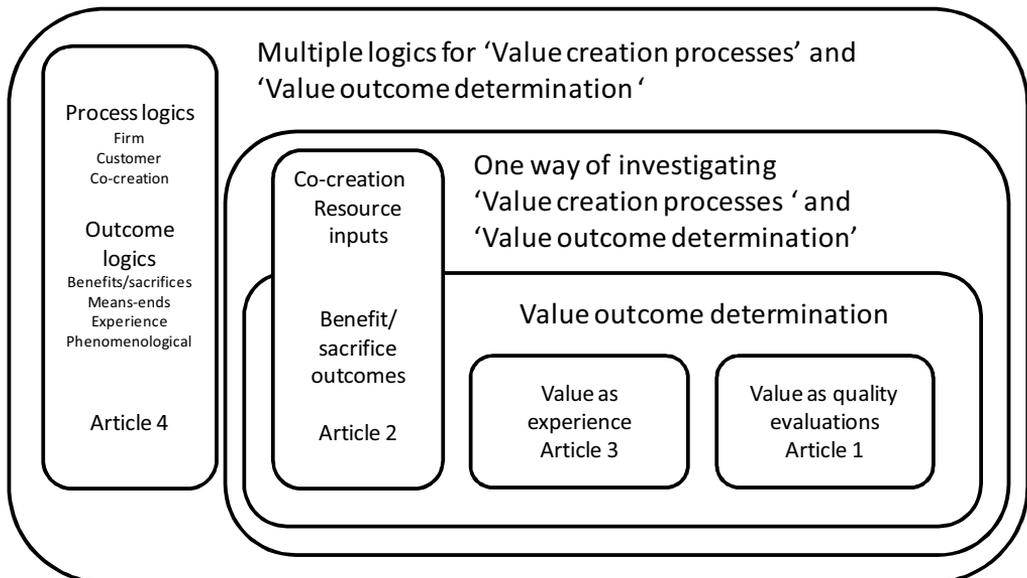
Figure 1   Articles' approaches to value and the concepts studied

1.3.3. *Delimitations*

The focal study is limited to investigating pure e-service offerings that do not embody exchange of a tangible product. Although e-services may include services between firms, organizations, governments, or customers, this dissertation concentrates on business-to-customer (b-to-c) e-service. The study was further limited to Internet and mobile services. Only one type of Internet service (a health care site) was studied.

Due to the broadness of the value concept, some choices had to be made when selecting literature. Since customer value is the central concept of study, literature on firm value creation was kept to a minimum. Also, literature on value of the customer to the firm, often termed as customer lifetime value (Woodall, 2003) and sometimes also as customer value (e.g. Palmatier, 2008), was excluded to the degree it explores the financial value of the customer for the firm. Furthermore, research on customer characteristics (Bolton and Drew, 1991b) or customer values, referring to the values customers hold and that are expected to guide choices (Rokeach, 1973), were not included in the study.

1.4. Research process

This dissertation project started from the premise that service quality is an important concept, whose impact on customer satisfaction, trust, and loyalty, deserves more research in the e-service context (paper 1). In other words, the context of the service (traditional versus electronic) and its potential impact on concepts such as quality, trust, value, satisfaction, and loyalty, was questioned.

At the time when the process was initiated, the most frequently deployed model of service quality was SERVQUAL, developed by Parasuraman and his colleagues (Parasuraman, Zeithaml and Berry, 1985, Parasuraman, Zeithaml and Berry, 1988). SERVQUAL, in its advanced form, proposes that service quality consists of tangibles, reliability, responsiveness, assurance, and empathy. An e-service model applicable for e-services was introduced in 2000 (Zeithaml, Parasuraman and Malhotra, 2000; 2002), but as this model was developed for retailing sites, many of the quality dimensions were inapplicable for pure service sites. With these aspects in mind, as well as looking into information systems literature, we constructed an e-service quality model, which was then tested among the customers of an e-health site. The idea, in other words, was simply to look at how e-service quality could be modelled for a service site with an intangible service offering, and the extent to which such a model would account for customer responses (trust, satisfaction and loyalty).

The project continued (reported in paper 2) by looking at how e-service process and content quality, as well as the e-service configuration, might impact customer perceived value as benefits/sacrifices (Zeithaml, 1988). The previous research was extended by adding the component of *e-service configuration,* i.e. combinations of different services, and how they might impact customer perceived value (instead of the earlier studied trust, satisfaction and loyalty). The e-service configuration reflects the ideas of S-D logic, according to which services are resources that customers use in their own value creation (Vargo and Lusch, 2008a). Simultaneously, the view of customers as creators or co-creators of value became more prominent (Vargo and Lusch, 2006, Grönroos, 2008).

During these initial research projects, I grew increasingly uneasy about the ability of quantitative techniques to reveal what really is going on in e-service consumption. I felt that the measurement of just certain predetermined aspects could not reveal how customers experienced value, and started to question whether a simple measurement of value as benefits/sacrifices ratio was adequate. My feelings are echoed in the writings of Baron, Patterson and Harris (2006), who point out the restrictions of a certain model being used over and over again: "[the theory] and its adaptations have been constrained by a

methodological straightjacket, brought about by the reliance on relatively simplistic items of measurement, coupled with the meta-theoretical assumptions that demand approaches that are consistent with previous research, and the development of parsimonious models" (p. 128). Although Baron et al. (2006) refer to the Technology Acceptance Model (TAM), the same constraints seem to apply for theories that model value as one construct in chains of quality-value-satisfaction-loyalty. It became particularly apparent to me that quality models, which measure customer assessments of firm variables, and to some extent of the degree to which these variables are adjusted to customer needs (e.g. through customisation and personalisation), did not do enough to understand how the e-service is evaluated or what the e-service does for the customer, i.e. what kind of a role it plays in the customer's everyday life.

The second study (accounted for in paper 3) was initiated not much after the first study to extract a deeper understanding of value as a multi-dimensional concept. This research project revealed that customer perceptions of mobile services are multi-dimensional (consisting of a number of different types of values) and also that the perceived outcome value of m-services is highly dependent on the use context. At this point, a number of value theories were reviewed, such as consumption theory by Sheth et al. (1991a,b), value as experience (Holbrook, 1994), and value as means-end chains (Gutman, 1982; 1997). Nevertheless, I still was not quite happy with the research approach, and continued to search for more literature to better understand the nature of value. At this point, I understood that measuring the value outcomes is not adequate, since it would mainly enable comparisons between different service offerings, but would not reveal how value came to be. After losing my faith in continuing to model customer behaviour in terms of models or outcomes, continuing on the path I had embarked upon was no longer viable.

At this point, I understood that I had tried to problematise the context of value instead of the concept of value. Consequently, I had too narrow a view on what value was. After I grasped this elementary problem, I started to go through value literature systematically, to categorise it and to make sense of the similarities and differences between the different research streams.

I also wanted to understand how Service-Dominant Logic (S-D Logic) fitted with the previous value theories, as it is one of the most influential theories within the marketing field in the 2000's and discusses value as one of its central premises. This added a macro aspect to my research, since the S-D logic tackles both service system level problems (Maglio and Spohrer, 2008) as well as value as subjective and phenomenological (Vargo and Lusch, 2008a).

Consequently, paper 4 reviews previous value literature and categorizes it into different streams, looking both at the macro level (how value is created and by whom) and the micro level (how individuals determine value when they use services). I decided to include only previous offline value theories, since e-service literature builds largely on the earlier value theories, and consequently would not enrich the discussion in the paper further. Instead, the context of value in e-services is discussed in this summary.

At the end of this research process, I noticed that I started from one theory, and ended with a large number of alternative theories. These theories, I feel, reflect how much and how little we know about value –this highlights the fact that most research explores what type of value and how much of it customers perceive, but very little is known about what customers do to arrive at these value perceptions.
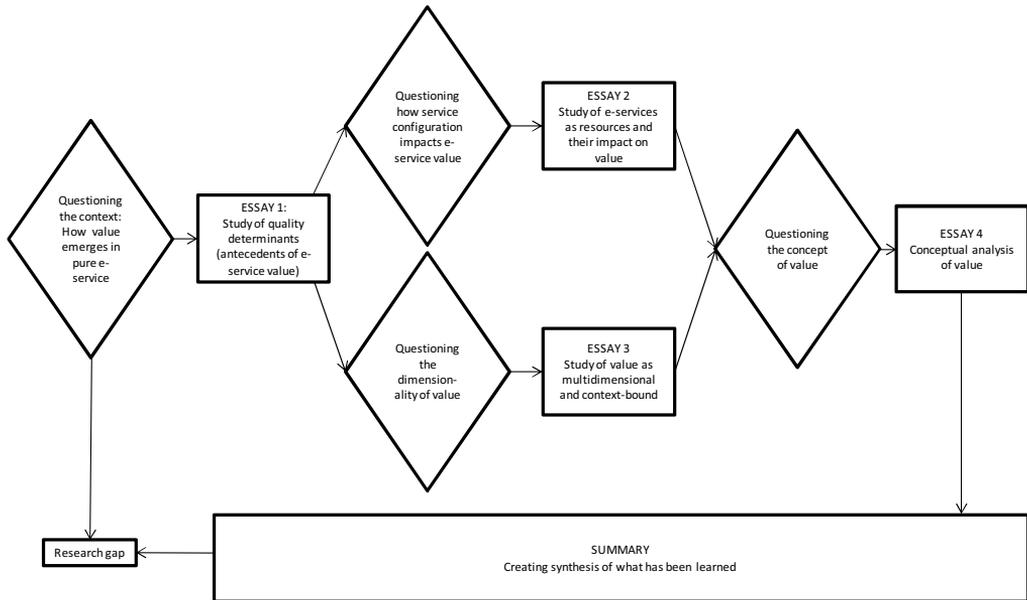
Figure 2   The research process

Thus, the research gap was redefined from the original one, with the aim to find out whether customer evaluations differ in the electronic environment from those in the offline environment (problematising the research context) to the current state of value research, particularly within e-services, and what research should do next (problematising the value concept and its treatment in e-service literature).

1.5.   Structure of the dissertation

In this chapter, the structure of this dissertation is presented to give the reader a preview of what is to come. All in all, six chapters are included.

The first chapter, *introduction*, presents the background of this dissertation and explains the motivation for taking up this research. It describes how value research consists of a number of theories that have different underlying premises about how humans evaluate firm offerings.

In the second chapter, *Value in marketing literature,* the concept of value is approached from several angles. It is proposed that customer value research has four main research streams: value as benefits/sacrifices, value as means-ends, value as experiences, and value as phenomenological. In this part, each of the theories is briefly described and the basic assumptions made in each are discussed. It aims to give a rich background for investigating value in e-services.

Chapter three, "*Value and e-services*", describes e-services and their characteristics, and reviews literature on e-service value. In particular, it shows that e-service research has tended to take a deterministic view on value, where value is typically seen as an automatic outcome of service characteristics such as web site quality.

The fourth chapter, "*Research methodology*" introduces the research methodologies applied in this dissertation. It starts by discussing the shift in the worldview of the author, and continues by presenting each of the methodologies used in the research papers.

Chapter five *"Summary of the articles"* summarises the research papers, and presents the findings of each paper.

Finally, in chapter six, *"Contribution to extant knowledge"* the contribution of this dissertation to the research community as a whole is presented. In addition, managerial implications are provided, and the limitations of this research project are discussed. The summary concludes with directions for future research as well as an epilogue.

1.6. Value in relation to other related concepts

1.6.1. Value versus values

'Values' in plural typically refer to personal values that people hold constantly. A personal value can be defined as "an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence" (Rokeach 1973, p. 5). Thus, values impact what is perceived as desirable, and therefore precede customer value which is always situation-specific (Holbrook, 1994) and which involves either a forecast of future value or evaluation of past experience.

1.6.2. Value versus motivations

Human motivations are proposed to guide behaviour, and constitute a state of mind (Dichter, 1964), whereas value in the marketing concept is typically seen as an assessment of the object or consequences of its use (e.g. Zeithaml 1988). Dichter (1964) further proposed that human motivations are limitless, and discusses a number of mental and psychological patterns of behaviour connected with motivation. These, he claims, are the patterns that connect the world of humans and that of objects. Among these are a number of mental activities such as creativity, imagination, but also mental change reactions that may be quicker, such as abreaction, or slower, such as acculturation. Still another group is acting out. Feeling states include affinity, aggression, alienation, ambivalence and anxiety. Ahtola (1985) proposed a distinction between utilitarian and hedonic motives. Utilitarian motives refer to perceptions of usefulness, value, and wisdom that are attached to a decision, whereas hedonic motives refer to pleasure.

In a sense, motivations can initiate behaviour, and consumption thus aims to gratify these motivations. Value, then, might be influenced by the degree to which the consumption corresponds with the underlying motivations.

1.6.3. Value versus consumer perception

Value is typically associated with a preference of an object or outcomes that are perceived, i.e. they are arrived at through the process of perception. Perception refers to a "process of sensing, selecting, and interpreting stimuli in the external, physical world into the internal, mental world" (Wilkie 1994 in Chen and Dubinsky, 2003:327). Thus, perception is prior to value outcomes.

2 VALUE IN MARKETING LITERATURE

In this chapter, offline value research is reviewed to illustrate the starting point for an investigation of value in e-services. Despite the extensive research conducted on value creation, there is no consensus on what value is or how it should be conceptualised (Woodall, 2003; Sanchez-Fernandez and Iniesta-Bonillo, 2007). Therefore, this chapter tries to organize previously published research and clarify the conceptual foundations of value.

The chapter begins by discussing the role of value in the official definition of marketing, after which exchange and use value will be distinguished from each other. After this, the assumptions related to value within services and relationship marketing and S-D logic are visited. Then, value creation and value outcome determination are discussed. Finally, literature on customer value outcomes is reviewed.

Value has received a more prominent role in marketing within last decade, which is apparent in the changes made in the definitions of marketing of the American Marketing Association (AMA). The latest definition of marketing was approved by the AMA Board of Directors in October 2007. It defines marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (AMA, 2007). Thus, value creation is clearly central for marketing in the new millennium. This is in contrast to the AMA definition from the year 1985 (Brown, 1985), which suggested that marketing includes "firms' internal processes that aim at the creation of exchanges that satisfy the parties engaging in exchange". This definition limited research interest in activities taking place before (and partially during) exchanges. This change in perspectives can be exemplified with a discussion of exchange value and use value (i.e. value in use).

Next, the difference between exchange value and use value is discussed, as are the implications of this distinction.

2.1. Exchange value and use value

Originally, value was treated as an inherent characteristic of commodities, and for instance Smith discussed the value of commodities mainly in terms of price fluctuations based on supply and demand (Smith, 1776/2001). According to this view, combinations of land, labour, and capital, i.e. the resources fed into the production process, would generate value, and the price would then be negotiated on the market. Marx also (1867/2001) distinguishes between "use-value" and "(exchange) value". Exchange value reveals a service's (or a good's) relative worth "when placed in a value or exchange relation with another commodity of a different kind" (Marx, 1867/2001, p. 88). Use value in turn relates to the satisfaction of a person's wants. By large, Marx sees value as inherent in commodities, although he proposes that different people value products differently, depending on their abundance.

However, it became clear that the view of value as inherent in commodities is problematic. Monitoring the quantity of resources was not sufficient for understanding the generation of value (McKnight, 1994) because of quality differences embedded in resources. For instance, not all labour is equally productive. Consequently, Austrian economists (e.g. van Misen) developed economic theory further and suggested that value determines cost, instead of cost determining value (McKnight, 1994; Smart, 1891/1931). McKnight (1994) exemplifies this idea with a commodity's marginal utility. Marginal utility for a person represents "the degree to which the additional quantity offered will add to his or her benefit" (McKnight, 1994:467). The marginal utility is a subjective concept, and therefore it is distinguishable from the 'market value', i.e. 'exchange value'. The latter type of value requires "overlapping subjective

valuations of potential buyers and sellers", meaning that an exchange takes place only when the valuations of buyers and sellers are equivalent (McKnight, 1994:469).

More recently, several authors have juxtaposed exchange value and value in use (e.g. Vargo and Lusch, 2004a; Prahalad, 2004; Sheth and Uslay, 2007). Exchange value is congruent with the value expected to be embedded in goods, i.e. the price set on the market. Decision-making at point-of-purchase situations represents a case of exchange value. In decision-making, customers are proposed to gather information about different options, and identify one superior alternative. The decision may be based on intuition, rule-following, or on trading off pieces of information. Intuition is largely based on pattern matching, where the current options are non-consciously compared with past decisions. Rule-following refers to simple shortcuts (i.e. heuristics), of the type if – then. Finally, contrasting alternatives means that either alternatives in total or their attributes are traded off. (Russo and Carlson, 2002) These decision-making processes are mostly discussed in the choice process context.

Within the 'exchange paradigm', an exchange (e.g. a sale) is treated as an automatic way to customer need satisfaction (Sheth and Uslay, 2007), where the customer has the role of a selector. Sheth and Uslay contend that exchange paradigm is limited, since it neglects the multiple roles held by consumers (e.g. user, payer, selector), and sellers (e.g. producer and financer) and overemphasises the value in exchange. In particular, they propose that other, neglected types of value (performance, personalisation, disposal, value for money) are also relevant but beyond the domain of exchanges.

Overall, present value research suggests that value creation continues well after exchanges (e.g. Parasuraman and Grewal, 2000), and therefore, 'Value in use' refers to the value embedded in acquisition, consumption, and disposition (Jacoby, 1978) of goods, services, events or ideas (Holbrook and Hirschman, 1982; Holbrook, 1987). Value in use in essence postulates that value emerges through use, and is not embedded in the product. Smart (1891/1931) has exemplified the distinction between use value and exchange value with clean water – it has much use value (being valued), but little exchange value (low price). This valuation however might not be made when there is constant access to the services/goods. Notably, some researchers do not see the discourse about exchange and in use value as a question about choosing one over the other, but rather see them as partial perspectives (Peñaloza and Venkatesh, 2006).

The aspect of the role of reflection is further discussed in article 4.

Next, the role of value in service and relationship marketing will be discussed, since this domain has advocated a focus on customer value long before the contributions of the S-D.

2.2. Value in service and relationship marketing

Service marketing is, according to Grönroos (2007), "a business logic and a perspective on how to create a competitive advantage" (p. 2). Service perspective is thus strategic in nature, and it is distinct from other perspectives, such as 'core product perspective', which is concerned with the quality of the core solution as the key to competitive advantage. Grönroos also points out two other strategic perspectives, 'price perspective' (lower prices than competitors) and 'image perspective', in which the firm tries to distinguish its offering through marketing communications.

The special feature of a 'service perspective' is that it is concerned with total service offerings, which aim to "provide a value-generating service for customers" (Grönroos, 2007:7). Service marketing heralds a focus on the customer: customers are viewed as active participants, and consumption-related activities are seen as value creating activities instead of destructing firm produced value (Wikström, 1996). Thus, customer value is central in services marketing.

However, the customer concentration does not mean that the firm collects customer information and gives customers what they say that they want. Rather, it means that the firm accepts the limited capabilities of the customer, and aims to educate and challenge the customer (Gummesson, 1998).

The recent discussion on the role of service in marketing brings an additional twist to value research in services (Lovelock and Gummesson, 2004; Vargo and Lusch, 2004b). It has been proposed that the ideas put forth by service marketing can be applied by marketers in general, because physical goods and services are becoming increasingly similar (Grönroos, 2000). Consequently, much of the ideas put forth by services marketing can be applied to marketing in general.

Next, I will briefly open up the discussion around goods versus services to clarify the shift in the mind-set about their relationship.

Originally, goods referred to tangible products that were outputs of a manufacturing process, whereas services included a more dynamic, interactional aspect. For long, services were defined generally as deeds, performances, or actions (Berry, 1980) that were characterised by four distinct features: intangibility, heterogeneity, inseparability, and perishability. These features purportedly distinguished services from goods and made them unique (e.g. Zeithaml, Parasuraman and Berry, 1985). In other words, services were proposed to lack in tangible quality and therefore be difficult to assess in advance, be impossible to standardise, be produced and consumed simultaneously, and not be fit for storing.

However, this view has been challenged for two reasons. Firstly, 'services' differ widely, and therefore none of the four characteristics (intangibility, heterogeneity, inseparability, and perishability) apply to all services (Lovelock and Gummesson, 2004). Secondly, Vargo and Lusch (2004b) argue that goods and services are not opposite; rather, they propose that "goods are appliances used in service provision, that is, goods and service have a nested relationship" (p. 333).

Lovelock and Gummesson (2004) propose a new type of paradigm that "would cut across the traditional goods and services dichotomy", and propose a rental/ownership dichotomy. According to this paradigm "marketing exchanges that do not result in a transfer of ownership from seller to buyer are fundamentally different from those that do" (p. 37). According to this type of definition, services entail access or temporary possession. Many e-services, particularly within e-banking, information, and entertainment, are apt to this kind of categorisation.

In addition to this rental-ownership dualism, another prominent view on services seems important. Services are generally characterised by their process nature, meaning that consumers and the production resources of the firm interact. According to this view, those parts of the service process that customers directly experience, are the ones that have a prominent role in the formation of customer perceptions (such as quality, value, satisfaction, loyalty). (Grönroos, 2000) Consequently, consumption also becomes a process where the customer's total experience is in focus. In this sense, the consumption of physical goods can also be modelled as services, e.g. since in retailing the purchases of physical products take place in a retailing environment where broader service experiences take place.

Richard Normann, one of the pioneers of service marketing, has proposed that 'service logic' also implies a shift from "transaction to relationship" (Normann, 2001:98). In other words, service and relationship marketing are also intertwined, because service logic naturally shifts focus from transactions to relationships.

In service research, customers are proposed to perceive value based on a total service experience: "A central characteristic of services is that value is formed primarily during the

(service) experience or process, not solely by its consequential object, the service output" (Lemmink, de Ruyter and Wetzels, 1998: 162). The technical aspects of a service reflect "what the consumer receives as a result of his interactions with a service firm" (Grönroos, 1984, p. 38), whereas service delivery also involves a process, i.e. how the customer receives the service (Grönroos, 1984).

In relationship marketing, value was proposed to stem not only from the service experience, but from the total co-operation between customers and suppliers within relationships. This view was contrasted with traditional marketing's value associated with outcomes (Sheth and Parvatiyar, 1995). Liljander and Strandvik (1995) differentiated between episode value and relationship value. Episode value consists of episode quality and sacrifice, whereas relationship value consists of relationship quality and sacrifice. Both of these were proposed to arise when customers perceive the quality and compare it to their zone of tolerance. Similarly, Ravald and Grönroos (1996) suggested that in relationships, the customer bases his/her value perceptions on not only the quality of the offering, but also the quality of the relationship. Notably, relationship benefits that have been identified by research are more than those provided by service experiences, as they refer to confidence, social, and special treatment benefits (Gwinner, Gremler and Bitner, 1998).

Two main points which are made in service and relationship marketing about the basis for value are:

- Value is based on the total service experience (including process and outcome)

- Value is also based on the relationship

A third point that I derive from the differentiation made by Lovelock and Gummesson (2004) between rental/ownership is that, according to this view,

- Value can be based on time-limited/constant access

2.2.1. Service-Dominant logic's impact on marketing research

The S-D logic, which was introduced in the mid-2000 (Vargo and Lusch 2004a,b) has worked as a catalyst for fervent discussions among marketing scholars about the basic assumptions made within marketing. The S-D logic aimed at capturing "the convergence of a revised logic of exchange that we saw evolving both within and outside of marketing" (Vargo, 2008; p. 211) towards service and away from the exchange of goods.

Consequently, the S-D logic has made service marketing an area of interest to much of the marketing field, not only a limited number of service marketing experts. The main message of the S-D logic was that all exchanges are in essence service based, and the role of firms is to use "ones resources for the benefit of and in conjunction with another party" (Vargo and Lusch, 2008a:6). Furthermore, the S-D logic postulates that value is co-created. At the same time, the S-D logic suggests that value is uniquely and phenomenologically determined by the beneficiary, i.e. the customer (Vargo and Lusch 2008a, p. 7). Thus, the S-D logic addresses both firm value creation and customer value determination, offering an avenue for combining both sides.

The S-D logic advocates looking at value-in-use rather than exchange value. However, S-D logic also emphasises value co-creation at a network level, whereas service and relationship marketing mostly discuss value creation within firm-customer relationships. The presuppositions of S-D logic will be further elaborated on in section 2.3., where value creation logics will be discussed.

2.3. Value outcome determination versus value creation

It is proposed that customer value determination is distinct from customer value creation although the two terms are related. The value creation logics are discussed here, since presuppositions about value creation also impact value outcome research.

2.3.1. *Different approaches to value creation*

Value creation is a process which leads to the customer being better off in some way (Grönroos, 2008). It is here proposed that previous research on value creation can be roughly divided into three different approaches: firm logic, co-creation logic, and customer logic.

Thus, the firm and the customer may be seen as two poles of a continuum (Strandvik, Holmlund-Rytkönen and Edvardsson (2008). The two poles refer to whose perspective value creation is expected to be based on. A firm perspective is the traditional one where the firm creates value and customers evaluate the outcomes. A midpoint is one where customers participate in firm processes (co-production, see e.g. Bendapudi and Leone, 2003), or where customer and firm co-create value (Vargo and Lusch, 2008a). A customer process-based logic studies how firms can participate in customer production processes (Strandvik et al. 2008). An additional view that does not follow this firm/customer division is value created within networks, "through the combined efforts of firms, employees, customers, stockholders, government agencies, and other entities related to any given exchange" (Vargo et al. 2008: 148), although it falls under co-creation since it refers to value creation made by multiple parties.

The locus of value creation, that is where value is expected to be created, affects research on customer value since it changes the unit of analysis of research. When value creation is expected to take place within the organisational boundaries, value research aims to understand how customers interpret and evaluate company offerings, and how companies can use their capabilities to maximise customer value evaluations. However, if value is expected to be created through interaction between a customer and a company, the research focus should shift to the dynamic interplay of the two parties (or even multiple parties depending on the service setting). In case value is seen as created solely by the customer, and firms are given the role of a resource supplier, customer practices, processes and experiences become the unit of analysis. Finally, if value is expected to be created within a network, resources and actions, as well as value determination of multiple actors within the network become the unit of analysis.

Next, these logics will be discussed briefly to open up the presuppositions of each.

Previously, it was typically assumed that value creation took place within the firm, although customers then formed their own private evaluations of firm offerings. This view, as conveyed by Flint, Woodruff, and Gardial (2002, p. 171), generally sees customer value judgements as customers' personal approximations of firm generated value: "A value judgement is the customer's assessment of the value *that has been created for them by a supplier* given the trade-offs between all relevant benefits and sacrifices in a specific use situation" (italics added by the author). In the same line, Devlin (1998) suggested that the competitive strength of a company depends on its ability to offer its customers value, and that value addition means "differentiating one's offerings effectively in the eyes of the consumer" (p. 1091). Thus, according to this perspective, value was seen as a result of successful manufacturing of offerings and/or differentation policy, and the customer's task was then to evaluate the value of each offering for him/her and choose the offering that provided most value.

Figure 3 depicts value creation and value determination in accordance to the 'traditional view', i.e. the firm as value creator and the customer as value determiner. The value is embedded in the offering (product, service, or other), and the dotted box denotes the sphere of value creation. The customer in turn evaluates the offering, i.e. determines the value of it, which is expressed through exchange value (the price paid to get access to the inherent value).
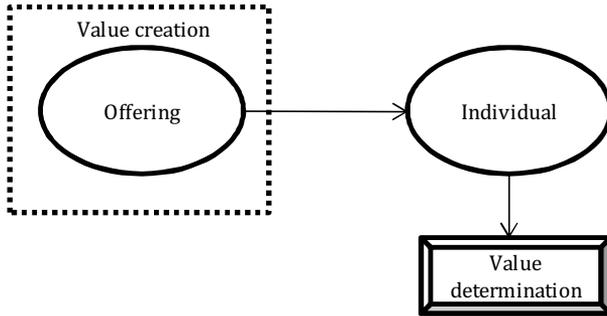
Figure 3   Firm value creation-customer value determination

This perspective is visible in the early literature on service quality, satisfaction, and loyalty, that mainly investigates customer reactions towards servicescapes (in terms of shopping environments, technical interfaces, or interaction) (Bitner, 1992), and how these impact customer evaluations and behaviour. For example, much research has been directed at measuring how customers evaluate firm offerings and showing that the higher the value perceived by the customer, the more likely the customer is to make repurchase decisions (Johnson et al. 2006; Sirdeshmukh et al. 2002). According to this view, then, the customer value outcome provides evidence of how well the firm value creation process has succeeded, and is indirectly linked to firm profitability through customers' increased repurchases. In other words, customer value functions like a control mechanism where firms can check that customers have received the value they produced. However, such a way of viewing the inter-linkage between value creation processes and value outcomes does not help in bridging the two or in improving value creation as a whole.

To sum up, the firm logics are in essence those logics that address how firms create value for customers, and often stem from management literature. Owing to the scope of this study, it is not possible to give due consideration to the full spectrum of literature aiming to explain how firms create value, nor is it relevant. More information about firm value creation processes is provided in paper 4.

Co-creation represents a shift from the singular view on value as firm produced/customer evaluated phenomenon to viewing value as co-created. Co-creation has been promoted by several researchers, including Normann and Ramirez (1993, Normann, 2001), Prahalad and Ramaswamy (2004), and most recently by Vargo and Lusch in S-D logic (2006, 2008).

A note of warning must be added when discussing co-creation in the context of S-D logic, since S-D logic shifts between different abstraction levels, and the abstraction level is not always clearly indicated. For instance, it is proposed that the context of co-creation is that of networks of networks (Vargo and Lusch, 2008), and that a customer is always a co-creator (a meta-level view of the customer's role in a broader network functioning together). In addition, value determination is expected to take place "uniquely and phenomenologically" (Vargo and Lusch, 2008a).

There are also those who outline value co-creation as a joint creation process by the company and the customer (Prahalad and Ramaswamy,2004). Here, the unit of analysis is the dyadic interplay involving two parties.

On an individual, customer level, Lusch and Vargo (2006) point out that value co-creation has two components: Co-creation and co-production. Co-creation of value refers to the fact that "value can only be created with and determined by the user in the 'consumption' process and through use or what is referred to as value-in-use" (p. 284). Co-production in turn refers to the customer's involvement in the creation of the core offering itself.

According to S-D logic, the customer's role as a co-creator is twofold: that of an active doer in terms of resource integration, and that of an interpreter of experiences. Accordingly, customers (as well as firms) are resource integrators (Arnould, Price and Malshe, 2006; Vargo and Lusch, 2006; 2008) when they employ resources to "determine and enhance their own consumption experiences" (Baron and Harris, 2008:115).

The resources that customers integrate to create value may be operant (knowledge and skills) or operand (goods and materials). Arnould et al. (2006) have further divided customer resources into physical, social or cultural. Physical resources involve energy, emotion, and strength, social resources include family relationships, communities, and commercial relationships, and cultural resources capture specialised knowledge and skills, history, and imagination. Customer also interprets the co-creation experience, and thus impacts the value outcome.

Figure 4 shows a simplified picture that aims to depict my interpretation of the S-D logic.
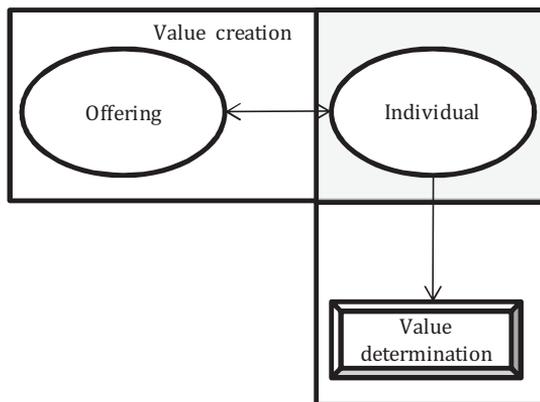
Figure 4   Interpretation of S-D logic's view on value creation and determination

According to this presentation, the commonality of value determination and value creation consists of the interpretational frame (depicted with the shadowed area). However, both value determination and creation may also have separate functions. In the case of value creation, the area covers shared interactions. In the case of value determination, the area is more diffuse. It is unclear what happens during value determination, as that is not explicitly discussed in S-D logic. The customer is a resource since he/she provides knowledge and skills to the value creation process and also to the interpretational frame by how he/she interprets the world. Value determination takes place based on this interpretational frame, when the customer determines the value "uniquely and phenomenologically" (Vargo and Lusch, 2008, p. 7). Value co-creation consists of resource integration within a network, and the customer selects the resources that he/she inputs in value co-creation processes.

A third view on the locus of value creation is 'customer value creation', and it will be discussed next.

Heinonen et al. (2010) promote a customer-dominant logic of service, and propose that this is a truly customer-centred approach in comparison to S-D logic, since it concentrates on the customer's world and activities. Customer value creation has been tackled in terms of processes or practices. Grönroos (2006) expresses this view as follows: "the customers do it [create value] in their value-creating processes, in other words, in their daily activities when products are needed by them for them to perform activities". Thus, this view on value creation is subjective. Payne, Storbacka and Frow (2008) suggest that customers create value in "a series of activities performed by the customer to achieve a particular goal" (p. 86). Payne et al. (2008) continue to discuss customer processes in terms of relationship experiences that constitute of emotions, cognition, and behaviour, and suggest that customer value creation processes are often non-linear and unconscious.

Also 'value in practices' concentrates on value creation from a customer point of view. Practices refer to the "more or less routinised actions, which are orchestrated by tools, know-how, images, physical space, and a subject who is carrying out the practice" (Korkman 2006, p. 27). Value practices are based on social practice theory (Bourdieu 1986; Schatzki 2005), which holds that human life is inherently and inseparably embedded in a context of intelligibility (Schatzki, 2005). Thus, the central characteristic of social practices is the interpretational frame, "the site" (Schatzki, 2005) or clearing (Heidegger, 1978 in Schatzki, 2005). All human actions, mental states, or even identities are to be interpreted within this frame, which depicts the meanings of phenomena. Practices hold that actions become valuable in the interaction with their context (Korkman, 2006). Practices do not typically question customers about their value perception or value outcomes, since it is assumed that customers' "voluntary participation in the practice is an explicit sign of its value creation" (Holttinen, 2010:104). This underlying assumption may also be considered as a constraint in practice theory, because consumers may involuntarily engage in practices, and repeat them due to constraints.

I believe that this shift in locus of value creation relates to differences in the lens used to investigate the phenomenon 'value creation'. Firm value creation takes the firm and its processes as a vantage point, and uses this lens to interpret value creation. Co-creation according to S-D logic again takes a more abstract level, often looking at how systems work (e.g. Vargo et al. 2008). Customer creation again is subjective in nature, and looks at the individual level.

Next, the level of abstraction is discussed.

2.3.2. *Value at macro versus micro level*

Value can be viewed either as macro or as micro level phenomenon. At micro (customer) level, which is taken in this dissertation, the perspective is that of 'zooming in', and the unit of analysis is the single actor's subjective view on value. This means that an individual's experiences or activities become the unit of analysis.

Value literature seems to share the premise that value outcome determination is always done by a single actor, typically in or after use situations, or in pre-purchase situations when considering the options, often based on past experiences (if such experiences are stored in the customer's memory).

This does not mean that a person would only consider his/her immediate desires or needs. On the contrary, a person, whilst making these decisions, may consider the goodness of the offering or the consequences of making certain choices for his/her network. For instance, the

customer, being the member of a family, can try to determine the value of an offering and to take into account the consequences of the purchase for the whole family. It may also be that the person settles for less personal value to increase the value for somebody else. The value determination that takes place is nevertheless bound to the actor's interpretational frame, and is therefore subjective in nature.

At macro (systems) level, the perspective requires zooming out and seeing the whole service system and the units of analysis can vary from dyads to networks. At this level, the question is bound to the role division within the network and to the resource flows (Vargo et al. 2009).

2.3.3. *A proposed view on value creation and determination*

Here, I will briefly outline my perspective on value creation and determination. Firstly, value creation processes are in my view personal, although during them people typically integrate a number of resources from other parties within this process, as do they use their own resources. For instance, a simple example is fixing a bicycle. The customer has his/her bicycle at hand (a physical resource, to use the S-D logic lexicon), but also other resources such as oil for the chains, that have been provided by numerous other parties. The network approach is however not evident from a subjective perspective, be it applied to value determination or creation. For instance, a person is usually not knowledgeable about the actors that have participated in producing the chain oil. From his/her point of view, it is logical to assume that he/she attributes the successful outcome of the repair to him/herself, not to a value network (co-creation). In other instances, e.g. when a customer dines in a restaurant, it is more likely that the customer feels like a part of a larger network, and then, the term co-creation is likely to be logical. This view is in line with Grönroos (2008). For simplicity, I do not however differentiate between creation and co-creation, but suggest that customer value creation processes and value determination could be viewed according to the illustration in Figure 5.
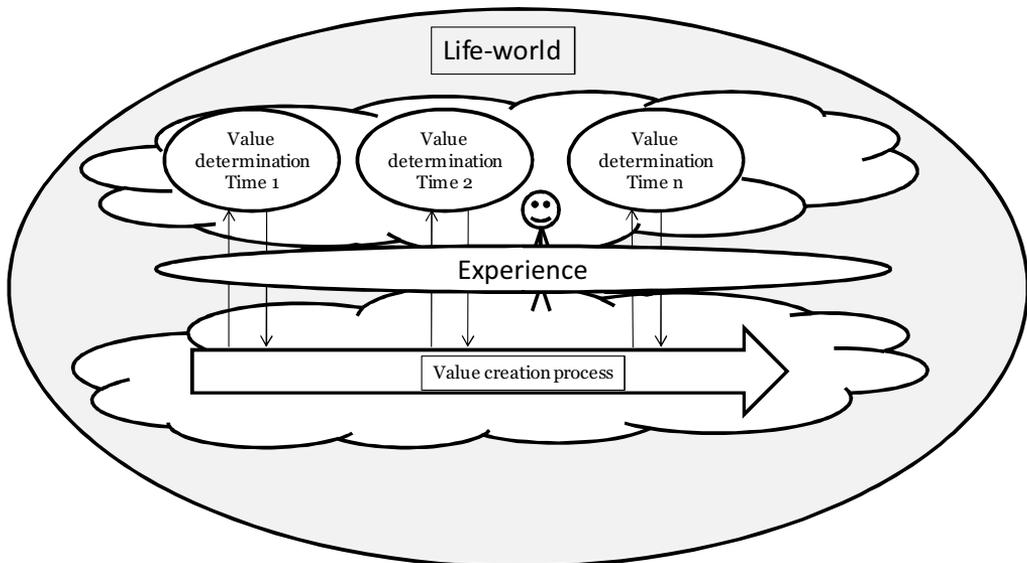
Figure 5   Value creation processes vs. value outcome determination

Value creation process typically refers to 'series of activities' that are taken to achieve a goal (Payne, Storbacka, Frow and Know, 2009:382). At any stage of such a process, there are

different factors that may impact customer value outcome determination. This perhaps explains why a person may evaluate the same product differently on different occasions (Zeithaml 1988). Customer value outcomes reflect value snap-shots, which may shift from one service encounter to the next (cf. Payne et al. 2008).

Value creation processes are hereby seen as a longitudinal process, whereas value outcomes can be determined at different points of time. Value outcomes depend on how the underlying value creation processes proceed, since they build their outcome determination on the experiences of these processes (article 4). The value outcome determination is also proposed to impact consequent actions, since customers can change their behaviour or attitude based on their perceptions (e.g. the fairness of the outcomes), or their beliefs about their own role in the value creation process.

Thus, it is proposed that value creation process and value outcome determination are distinct, but interdependent.

2.3.4. *The role of services and goods in value creation*

The role of the service is slightly different depending on which value creation logic one uses as a lens. According to a firm-logic, services would be outputs, where the customer is the object of firm action.

In co-creation, "Goods are a distribution mechanism for service provision" (Vargo and Lusch 2008), which means that goods render services to customers who use them. Hence, goods and services are seen as parallel entities. Holbrook has uttered the same idea of goods as service carriers. He views "all products as performing services that *potentially* provide value-creating consumption experiences" (Holbrook 1994: 21, italics added). Likewise, Normann (2001) uses the term "frozen services" for products (Normann, 2001). Prahalad and Ramaswamy (2000 in Schembri, 2006, p. 385) link the value of goods to experiences, as they state that goods are "artefacts, around which customers have experiences".

In S-D logic, products and services are seen as resources that customers use in their value creation.

Notably, it would seldom be that a service is evaluated in its own right. Rather, services can have different roles for the customer regarding their importance, their ability, how they are used, when they are used, and with whom they are used. As such, the role of a service depends on the customer's meaning-making. For instance, involved customers may perceive music in itself as important, whereas a tone-deaf person might employ music to cover disturbing noises.

2.4. Value outcome determination

Since the focus of this dissertation is on customer value, value outcome determination is discussed from a customer perspective, i.e. how customers determine the value outcomes, although it is acknowledged that also suppliers can follow these logics. First, previous reviews on value determination logics are presented, since they give a broad overview of work done within this area.

2.4.1. *Reviews of value outcomes*

There are several literature reviews available on value (Sanchez-Fernandez and Iniesta-Bonillo, 2007; Woodall, 2003) and therefore, this chapter builds on the work of these

authors, presenting their findings, drawing on them, and extending them. The studies are presented in a chronological order, starting from Woodall (2003).

Woodall (2003) drew on economic and philosophical thoughts, and conducted a literature review to clarify the foundations of the 'value for the customer' concept.

First, Woodall started with a preliminary model of value with four types of value (exchange, intrinsic, use, and utilitarian value) identified in literature on economics and philosophy. The distinction between value types was based on the point of evaluation (the object, the subject, or a combination of the two). According to him, 'exchange value' is object-based and stems from the nature of the object and the market, although the customer (the subject) impacts value since he/she can react differently to the offered value. 'Intrinsic value' in turn is object-based, and "is perceived as the object and subject interact" (Woodall 2003:6). Broadly speaking, 'intrinsic value' stems from valuation of the qualities inherent in an object. 'Use value' is subject-based, but perceived in object-subject interaction. Finally, utilitarian value is subject-based, stemming from a comparison of intrinsic and/or use-value with the sacrifices made. All of these interpretations are contingent on the subject's values and the environment (i.e. context) (Woodall, 2003).

Table 1 illustrates the specifics of each of the four value interpretations in brief, and it is composed based on the literature review made by Woodall (2003).

Table 1 Four interpretations of value on economics/philosophy based on Woodall (2003)

Interpretation of value	Basis	Explanation	Appropriated based on	Temporal dimension
Exchange value	Object	"Used to qualify or quantify the economic 'worth' of an object" (p. 4)	Nature of the object and the market, subject	Exchange
Intrinsic value	Object	Valued features (Frondizi, 1971)	Object-subject interaction	Before/during consumption
Use value	Subject	Value is subjective based on need satisfaction, but the needs are personal and changing	Object-subject interaction	During/after consumption
Utilitarian value	Subject	Comparison of intrinsic/use-value with sacrifices	Subject-based	Time of comparison

Woodall, however, criticised this value framework since it does not account for "marketers' views on the nature of demand-side perceptions of value" (p. 6). Based on a cross-section of value literature consisting of ninety articles, predominantly within marketing, Woodall (2003) further identified five primary types of 'value for the customer (VC)': Net VC, Derived VC, Rational VC, Sale VC, and Marketing VC. 'Net VC' presents the balance of benefits and sacrifices (e.g. Dodd, Monroe and Grewal, 1991). 'Derived VC' reflects the use/experience outcomes, or the use value, and they typically include a variety of different types of outcomes, for instance aesthetic, emotional, functional, or social value (see e.g. Holbrook, 1994; Sheth et al., 1991a,b) . 'Marketing VC' refers to the way marketers try to identify those benefits their customers might find the most attractive and thereby optimise their offerings (e.g. Walters, 1999). 'Sale VC' is value as low price (e.g. Zeithaml, 1988) and it corresponds to an idea of minimal sacrifices necessary to acquire a good/service. Finally, 'Rational VC' is a computation between a 'fair price', which is based on a customer's price benchmark in comparison to the perceived benefits of a good/service, and the real price.

Woodall argues that all other types of values are subordinates to 'Net VC', but also that there is an additional category, 'Aggregated VC', which reflects an overall view of VC. The 'Aggregated VC' is less rational than the Net VC, reflecting the experience in its entirety. Thus, it is "greater than and/or different from the sum of its individual parts" (Woodall 2003: p. 24).

Furthermore, Woodall (2003) ascribed value as temporally contingent, meaning that a longitudinal perspective can be taken of it. In accordance with this view, value approximations can be made prior to purchase (Woodruff, 1997), at the point of purchase

(Grewal, Monroe and Krishnan, 1998), post-purchase (Woodruff and Gardial, 1996), and at the time of disposition (the 'redemption value' by Parasuraman and Grewal, 2000).

Woodall concludes by presenting a four-partite model of value where the six different types of value are assessed depending on the degree they are superior, unanticipated, desired, expected, basic or of no value. This leads to (dis)satisfaction, which leads to (dis)loyalty, which leads to profitability. Thus, the outcome is a value-satisfaction-loyalty-profit chain.

When looking at the paradigmatic view on value, Woodall (2003) clearly recognised the multifaceted nature of value, since he suggested that 'value for the customer' should be viewed holistically. "Value, therefore is neither use, nor exchange; it is neither object-based, nor subject-based; it is neither my view, nor your view, it is all of these things" (p. 6).

Sánchez-Fernández and Iniesta-Bonillo (2007) reviewed literature on 'perceived value'. They came up with a division of value literature into uni-dimensional and multi-dimensional models, which they suggested to represent a simple and respectively a complex understanding of value.

The uni-dimensional main stream consists of literature that conceives value as a one-dimensional construct, meaning that it can be measured as an overall evaluation (Sánchez-Fernández and Iniesta-Bonillo, 2007). This stream includes price-based studies ('Monroe's research stream'), Means-end theory ('Zeithaml's approach'), and some additional research (e.g. McDougall and Levesque, 2000). The multi-dimensional research stream in turn contains studies that model value as consisting of multiple dimensions. The sub-stream to multi-dimensional research is 'utilitarian and hedonic value' (this is a mere collective title given to describe the underlying theories). The utilitarian and hedonic value stream consists of 'axiology of value theory' (of Hartman, 1967 in Sánchez-Fernández and Iniesta-Bonillo, 2007), 'Holbrook's typology of value' (Holbrook, 1994), and 'consumption-values theory' (Sheth et al. 1991a,b).

The treatment of means-ends theory is somewhat problematic in this classification for two reasons. First, the authors (Sánchez-Fernández and Iniesta-Bonillo, 2007) suggest a second means-end theory stream 'the customer value hierarchy' based on the work of Woodruff and his colleagues (Woodruff and Gardial, 1996; Woodruff, 1997). This stream is placed as both uni-and multi-dimensional. Unfortunately, there is no discussion as to why this is so. Secondly, the category "Means-end theory: Zeithaml's approach" includes a large number of works that do not refer to Zeithaml but rely on the theories of Gutman and his colleagues (Gutman, 1982; Reynolds and Gutman, 1988). Examples of this are the research done by Baker, Thompson, Engelken and Huntley (2004), Botchen, Thelen and Pieters (1999), and Mitchell and Harris (2005). In fact, it can be questioned whether Zeithaml's (1988) research can be classified as a means-end theory at all, since she builds on Dodds and Monroe's (1985) quality-price ratio rather than means-end laddering. Despite this inaccuracy in the semantic titles, there is an interesting comparison made between uni-dimensional and multi-dimensional approaches (see Table 2).

Table 2 **Comparison of uni- and multi-dimensional value research streams, modified from Sánchez-Fernández and Iniesta-Bonillo (2007)**

Stream	Uni-dimensional value streams	Multi-dimensional value streams
Based on	Economic theory and cognitive psychology	Consumer-behavior psychology
Approach	Cognitive	Cognitive-affective
Direction	How value is evaluated	How value could be improved
Scope	Simplicity	Richness and complexity
Problems	Lack of agreement on the antecedents of value	Lack of agreement regarding the components of value
	Confusion about the relationship among the antecedents	Confusion about the relationship among the components
Use	Widely employed	Seldom employed

Sánchez-Fernández and Iniesta-Bonillo (2007) conclude that the two perspectives of uni- and multidimensionality of value "have worthwhile contributions to make to the study of value" (p. 441). Nevertheless, they choose Holbrook's typology (1994) as "the most comprehensive approach to the value construct, since it defines more sources of value than other studies" (p. 441). Consequently, they chose to define value as multi-dimensional concept that is "preferential, perceptual, and cognitive-affective in nature. This is in line with Holbrook (1994), who has suggested that value is an "interactive relativistic preference experience" (p. 27). Also, they ascribed value as dynamic in that it is situational, in line with Holbrook (1994; Mattsson, 1992; Zeithaml, 1988). Although Sánchez-Fernández and Iniesta-Bonillo (2007) conclude that this is due to changes in the evaluation basis, it may also be that the contextual factors change, such as time restrictions, and lead to changes in value.

Value outcome determination logics include four research streams: value as means-end chains, value as input/output ratio, value as experience, and value as phenomenological (see Figure 6).

Figure 6   Value outcome determination logics

These streams will be discussed next.

2.4.2.   *Value as means-end chains*

Alderson (1957) proposed that humans acquire products because they serve as means to desired end states such as happiness, self-esteem, or physical contentment. Value as means-end chains inspects product evaluations as chains from the object characteristics to use consequences. It is based on expectancy-value theory (Gutman, 1997). According to this view, value can be appreciated at different levels of abstraction, product attributes being at the lowest, attribute performances at the middle, and goals and purposes at the highest level (Woodruff, 1997). It is further suggested that use consequences (in terms of goal achievement) help customers assess the importance of attributes and attribute performances. The consumer makes rational choices between those attributes/attribute performances that perform the best (Woodruff, 1997). After learning which outcomes are desirable and which not, consumers adjust their behaviour accordingly (Gutman, 1982). In his newer work, Gutman (1997) adds that action units, i.e. the sequences of acts that customers take to achieve goals, are important for understanding means-end chains.

Interestingly, Grunert and Grunert (1995) propose that two basic views on means-end chains can be distinguished. Accordingly, means-ends chains can be primed from the bottom (attributes-performances-goals), or from the top (goals-performances-attributes). A bottom-up approach initiates a cognitive processing of firm offerings, whereas a top-down approach initiates goal-directed actions (Brunsø, Scholderer and Grunert, 2004).

The means-end approach has been criticised for the difficulty of developing an operational definition of value that would allow its measurement, since the assessment criteria for value are so broad (Parasuraman, 1997). The means-end chain modelling is strongly anchored to the characteristics of the product.

2.4.3.   *Value as benefits/sacrifices*

This research stream views value as a cognitive judgement of utility (Bolton and Drew, 1991b; Dodds et al. 1991; Grewal et al. 1998; Monroe and Chapman, 1987, Zeithaml, 1988) that is calculated between inputs (benefits) and outputs (sacrifices). In its simplest form, it is a ratio between service quality (benefit) and costs (sacrifice) (Brady, Knight, Cronin, Tomas, Hult and Keillor, 2005), or even an assessment of a product being a good buy (Dodds et al. 1991). The benefits may include several quality dimensions (Patterson and Spreng, 1997), but also relationship benefits (Ravald and Grönroos, 1996), time-to-market, know-how, and social benefits (Ulaga, 2003). Sacrifices also range from monetary to non-monetary (see Woodall,

2003 for a review). This view has been adapted to products (Zeithaml, 1988; Dodds et al. 1991) and to services (Brady et al. 2005; Patterson and Spreng, 1997).

Within this research stream, value is often studied together with service quality and satisfaction, and is modelled to lead to behavioural intentions (e.g. Brady et al. 2005; Cronin et al. 2000; Zeithaml et al. 1996). Johnson et al. (2006) have added that value is a comparative judgement, in that it "encompasses perceptions of quality given price and inputs versus outputs *relative to the competition*" (p. 123, italics added).

Johnson et al. (2006) showed that perceived value as a benefit/sacrifice ratio has a stronger direct link with behavioural intentions in the early stages of a relationship, whereas later, after the relationship with the product has stabilised, affective commitment and brand equity largely mediate the relationship between value and behavioural intentions. Thus, it is acknowledged that value is temporally shifting. Accordingly, some researchers have differentiated value in relation to acquisition, transaction, in-use and redemption (Grewal et al. 1998; Monroe and Chapman, 1989; Parasuraman & Grewal, 2000).

Value as a benefit/sacrifice ratio has received criticism, because it sees value as a result of consumers' cognitive information processing (Holbrook and Hirschman, 1982; Payne et al. 2008). The criticism is based on the notion that customers do not rationally calculate costs and benefits continuously, but that consumption emotions also play a role in consumer experiences. Nevertheless, the benefit/sacrifice ratio is proposed as "the most popular conceptualisation in marketing" (Patterson and Spreng, 1997: 416), and continues to be used (e.g. Hume and Sullivan Mort, 2008; Moliner, 2009; Sirdeshmukh et al. 2002).

2.4.4. *Value as experience outcomes*

Value as experience outcomes aims to supplement and enrich the view of customers as logical decision makers to humans as emotional and irrational (Hirschman and Holbrook, 1982; Holbrook and Hirschman 1982). Thus, it combines affect and cognition of a consumer. Value as experience includes both hedonic and utilitarian value (e.g. Babin, Darden and Griffin, 1994; Batra and Ahtola 1991; Hirschman and Holbrook 1982; Sweeney and Soutar 2001), but also more complex value divisions such as the consumption value theory by Sheth et al. (1991a,b), and the value typology of Holbrook (1994).

Value has been defined as "interactive, relativistic preference experience" (Holbrook 1994:27). According to this view, value is an experience based on interaction between a subject and an object. Relativism refers to value being comparative (in comparison with other objects for the very person experiencing value), personal assessment (what is valuable for one person need not be that to another), and situational (i.e. context specific). Notably, Holbrook talks about value as resulting not from an object, but from "consumption of its services" (1994:28). Thus, Holbrook seems to subscribe to a more holistic view of consumption behaviour.

In addition to hedonic and utilitarian value, categories of social, epistemic and conditional value have been proposed (Sheth et al. 1991a,b). Park, Jaworski and MacInnis (1986) proposed a further dimension of symbolic benefits that refers to fulfilment of internally generated needs associated with self-image or role. Holbrook (1994) further suggests a typology of eight different types of value, of which politics, esteem, morality, and spirituality differ from the framework of Sheth et al. (1991a,b).

According to Holbrook (1994), value has three dimensions: a) extrinsic versus intrinsic value, b) self-oriented versus other-oriented value, and c) active versus reactive value. The first extrinsic versus intrinsic dimension refers to the distinction between an object being a means to achieving some other objects (extrinsic value), or whether it is of value for its own sake

(intrinsic value). The second dimension refers in a sense to the motivational locus of value. Self-oriented value is driven by self-interest, whereas other oriented value refers to value sought for "the other", be it based on the reactions of others, the effect on others, or 'other' beyond mere self-interest (e.g. the universe, one's subconscious). The third dimension refers to a distinction between active and reactive value. 'Active' here means that the subject is acting upon an object or on an experience, and that this activity results in value. 'Reactive' in turn refers to an individual being more passive in the sense that he/she does not engage in manipulative actions, but rather lets the object or experience have its effect on him/her (Holbrook, 1994). It has been noted that the moral and spiritual aspects are evasive and difficult to adopt in research (Sánchez-Fernández, Iniesta-Bonillo and Holbrook, 2009).

Table 3   Value typology in the consumption experience by Holbrook (1994), p. 45

		Extrinsic	**Intrinsic**
Self-oriented	Active	Efficiency (0/1 ratio or convenience)	Play (fun)
	Reactive	Excellence (quality)	Aesthetics (beauty)
Other oriented	Active	Politics (success)	Morality (virtue or ethical acts)
	Reactive	Esteem (reputation)	Spirituality (faith or ecstacy)

This research stream is characterised by little attention given to sacrifices, since value is typically seen as a holistic assessment. When monetary value is included as one value category (e.g. Sweeney and Soutar, 2001), no trade-off between the categories is suggested. For instance, Chandon, Wansink and Lauren (2000) found six distinctive benefits customers may experience from a sales promotion, of which one is a saving benefit, and the others are quality, convenience, value expression benefit (feeling smart), exploration benefit, and entertainment benefit. Brakus, Schmitt and Zarantonello (2009) in turn abandoned the value concept and instead concentrated on measuring brand experience in terms of sensory, affective, behavioural and intellectual dimensions. Although the experiential view on value originally was interested in experiences, the classifications stemming from this view have been used widely to study different benefit (e.g. Chandon et al. 2000) or value types (e.g. Sànchez-Fernández et al. 2009).

2.4.5.   *Value as phenomenological*

Originally, the idea of consumption experiences was coined within the experiential view on consumption, as the experiential view was "phenomenological in spirit" (Holbrook and Hirschman, 1982, p.132). Later, value as phenomenological has been strongly advocated in the S-D logic, at least partially influenced by Schembri (2006). Vargo and Lusch (2008) proposed that "Value is always uniquely and phenomenologically determined by the beneficiary". According to his view, value is idiosyncratic, experiential, contextual, and meaning-laden. Notably, the S-D logic does not elaborate on what the value outcomes might be, but rather settles for describing how and by whom it is determined.

Drawing from the existential-phenomenology, value as phenomenological will be discussed next. Thompson, Locander, and Pollio, (1989) proposed three types of metaphors to understand the existential-phenomenological view: the pattern, the figure/ground metaphor,

and the seeing metaphor. The pattern metaphor refers to the embedded nature of phenomena in a contextual world, i.e. seeing things holistically rather than as parts that can and should be segregated. The second metaphor, the figure/ground, reveals three aspects. First, experiences are dynamic processes in which some events stand out (become figural), whereas others fade to the background. For example, one aspect of the experience (e.g. party doing something) catches the attention of the person, whereas other aspects remain on the ground. Second, figure and ground co-exist, rather than create each other. Third, phenomenological view assumes that experience modes are intentional, meaning that they have a focus. Finally, the seeing metaphor refers to experiences being unreflected until they are seen by the experiencing person, i.e. the previously unreflected becomes reflected when the person comes to make sense of his/her behavioural patterns (Thompson et al. 1989).

These metaphors also help to understand value as phenomenological. Firstly, it is embedded in a contextual world, and research should try to understand patterns rather than segregate parts of the experience (the pattern metaphor). Secondly, during customer experiences, customers may pay attention to some events, whereas other events are not focused on. Therefore, firms may want to understand how the events are experienced, and what events customers perceive as figural (figure/ground metaphor). Finally, it should be understood that many of the experiences are unreflected, and customers do not necessarily come to question their behaviour unless prompted to reflect upon it (seeing metaphor). In essence, value as phenomenological is context-bound, and emerges from the life-context of the person as he/she experiences something. Notably, research on value as phenomenological is, to the best of my knowledge, more or less non-existent, although there are some studies on consumptions experiences that may be relevant for value as phenomenological (see e.g. Arnould and Price, 1993; Holt, 1995).

2.4.6.   Summary of value outcome determination

All in all, it can be stated that value determination research has predominantly been interested in measuring evaluation outcomes of service processes and outcomes. This means that much of previous value research is, due to the emphasis laid on value categories and evaluation of those, poorly answering questions regarding value creation.

There are some characteristics that seem pervasive across value outcome determination. The foremost commonality is that it is typically assumed that customers' value outcomes influence their consequent attitudes and behaviour. This is an assumption which exists in all of the research streams. In the benefit/sacrifice stream, value judgements are expected to lead to satisfaction and loyalty (e.g. Lam, Shankar, Erramilli and Murthy, 2004). In value as means-end, it is proposed that customers' choice behaviours are guided by the desirability of goals achieved through product use (Gutman, 1982). In value as experience research, choices are likewise expected to depend on value outcomes (e.g. Sheth et al. 1991a,b), or value is equalled with preferences for one offering over another (Holbrook, 1994).

Some aspects clearly differentiate the value outcome streams. First, it is proposed that value outcome has been either outlined as a judgement (value as benefit/sacrifice or value as means-ends) or as an experience (value as experience). The second distinction is that of value outcome as a get/give approximation (value as benefit/sacrifice) vs. value as emerging from goal attainment (value as means-ends, value as experience). Thirdly, value has been proposed as either relatively stable (benefit/sacrifice) or as contextual (time, place and other context dependent). A stable view would posit that judgements are one-offs, whereas a contextual view may investigate experiences across acquisition, usage and disposition (Parasuraman and Grewal, 2000), and how different contextual effects impact value outcomes (e.g. Sandström, Edvardsson, Kristensson and Magnusson, 2008).

2.4.7.   Additional research related to value

Within consumer research, there are a number of findings that regard value in the context of purchasing decisions and setting a monetary price on things. These typically go beyond the classification created in this dissertation. As they have impact on marketing communications, they are however introduced briefly. Firstly, mental accounting refers to the way people allocate money into different mental accounts (McGraw, Tetlock and Kristel, 2003), which may impact their willingness to spend. Also, the source of the money might impact consumption decisions (McGraw et al., 2003). Therefore, the way a product or service is presented by marketers (e.g. as an investment or as a consumable) might affect consumer decisions, as the predicted value might be compared to resources allocated to a certain mental account.

In addition, Carmon and Ariely (2000) showed that buyers tend to consider what they will forgo (typically in monetary terms) when they purchase an item, whereas sellers look at the benefits of possessing an item. Therefore, the monetary value often differentiates between sellers and buyers. This means that not only are value evaluations based on what is available on the market (extrinsic assessment) (Kirmani and Baumgartner, 2000), but they are also dependent on what customers perceive they have to forgo (an internal assessment).

2.5.   Overview of the different research streams

As this dissertation maintains a perspective that the different value research streams can be seen as complementary, and offering insight into different aspects of value, the characteristics of the different research streams are discussed here. Table 4 summarises the main perspectives of the different streams, gives information about the main assumptions, how value is conceptualised, what is the view on the customer, and where value is expected to reside.

Table 4   Overview of the different research streams

Approach	Research question / aim	Value conceptualization	Authors, e.g.	Theoretical assumptions	View on customer	Value locus
Value determination logics						
Value as benefits/sacrifices	How customers perceive sacrifices vs. benefits? Which sacrifices / benefits are relevant?	Benefits/sacrifices ratio	Zeithaml (1988) Bolton and Drew (1991), Voss et al. (1998) Patterson and Spreng (1997)	Perceived value results from perceived quality, perceived sacrifice, extrinsic/intrinsic attributes and high-level abstractions	Information-processing, value maximizing	Perceived quality, extrinsic & intrinsic attributes and high—level abstractions weighted against perceived sacrifices
Value as experience	What types of value customer receives through product use?	Several value types, e.g. hedonic (emotional), utilitarian (functional, monetary, convenience), social value	Holbrook and Hirschman (1982) Sheth et al. (1991) Sweeney and Soutar (2001)	Environmental and consumer inputs interact when the customer responses to inputs with cognition, affect and behaviour.	A consumer-customer who is fantasizing, feeling, and seeking for fun, supplement to information processing perspective	Fun or pleasure derived from product consumption (in addition to eventual utility value), based on subject-object interaction
Means-ends value judgement formation	"How a product or service selection facilitates the achievement of desired end states" (Gutman 1982, p. 60)	Consequences can be physiological, psychological or sociological	Gutman (1982) Woodruff and Gardial (1996) Woodruff (1997)	1) Values (desirable end-states of existence) guide choices 2) Customers group products into sets or classes to reduce complexity	Information-processing, seeking desired consequences and minimizing undesired consequences	Direct consequences from the consumed thing or from the consumption act. Indirect consequences when others react to consumer due to the consumption behavior
Value as phenomenological	"Value is always uniquely and phenomenologically determined by the beneficiary" (Vargo and Lusch, 2008: 7)	idiosyncratic, experiential, contextual, and meaning laden	Vargo and Lusch (2004, 2008) Helkkula and Kelleher (2010)	Value is phenomenological/experiential	Customer as experiencing and determining value	Value connected to individual subjective experiences
Value creation logics						
Customer value creation	"to develop understanding of how value merges according to the practice-theoretical stance" (Korkman 2006, p. 162), i.e. how value is formed	"sociological phenomenon that is constructed in the combination of people, people and material, and culturally embedded rules, images etc." (Korkman 2006:167)	Korkman (2006), Schau et al. (2009)	Customer value embedded in practices, it is neither objective nor subjective, it is formed in practice, is enhanced through intervention (Korkman, p. 47)	Customer as a holistic being, living his/her life	Identification of customer practices, e.g. social networking, community engagement, brand use and impression management (Schau et al. 2009)
Co-creation	How operand and operant resources are applied in co-creation	The interactional nature of value as value is co-created	Vargo and Lusch (2004, 2008)	"Value results from the beneficial application of operant resources sometimes transmitted through operand resources" (2004:7)	Customer as co-creator (2008) and an operant resource (i.e. knowledge and skills, 2004)	Co-creation
Firm creation	How firms gain competitive advantage through their activities/resources	Value stems from firm resources and capabilities by 1) application of these on specific markets 2) through problem solving and/or 3) creating networks	Stabell & Fjeldstad (1998) Morgan and Hunt (1995) Porter (1985)	Multiple logics, e.g. value chains, resource-based view, value shops, value networks	Consumers as external to the firm (resource-based view), as the starting point (shops), as resources (networks)	Value creation of firms

2.5.1.   Fitting the different logics together

In this section, the logics for value creation processes and value outcome determination are contrasted. The discussing is rather speculative, since much of the research in value determination does not explicitly take up value creation.

To recap, firm value creation (e.g. Kotler, 1972), co-creation (Vargo and Lusch 2004; 2008), and customer value creation (Heinonen et al. 2010) represent different views on who creates value and how it is created. Value determination in turn can take place through 'value as benefits/sacrifices', 'value as means-ends', 'value as experience' and 'value as phenomenological'.

When the underlying assumption is that the firm creates and determines value, customer is a passive recipient of the service, and the customer makes choices between products based on the exchange value (Vargo and Lusch, 2006; Prahalad, 2004). It is noteworthy that little value research seems to take an extreme view on value as firm determined. Rather, it is generally assumed that customers determine value, even if the firm would be expected to create it (e.g. Kotler, 1972).

Nevertheless, an 'almost' firm driven view is one where customers are proposed to evaluate value at point-of-purchase as a price/quality ratio. According to this view, customers evaluate (potential) value and base their choices on these evaluations. The approach 'value outcome as benefit/sacrifice ratio' is in line with firm value creation under three conditions: 1) when it assumes value is evaluated at the point of purchase, 2) it is proposed that there are predefined aspects that represent appropriate benefits or sacrifices of a service, and 3) when the customer is seen as passive, reactive agent to company offerings (see Marsden and Littler, 1996). In other words, I am not claiming that a benefit/sacrifice approach would inevitably rely on a firm approach, but rather that the current ways of conducting research (a survey instrument), where the customer is asked to evaluate predefined aspects of a service, might be such. Liljander and Strandvik (1993) have described this phenomenon well: "…benefits are measured on the service attribute level, instead of considering consequences of attributes or connections to the consumer's value system" (p. 15).

The 'means-ends' approach takes a broader approach to value, as it typically includes the consequences of use in terms of 'value-in-use'. Nevertheless, it seems to at least partially rely on an assumption that value is created by the firm. As Woodruff and Gardial (1996) advise: "We need to know what customers think of our value delivery" (p. 15). In the same publication, Woodruff and Gardial take a customer value perspective, and posit that customer value is "the customers' perception of what they want to have happen (i.e. the consequences) in a specific use situation, with the help of a product or service offering, in order to accomplish a desired purpose or goal" (p. 54), and propose value in use and possession value as two classifications of value. Nevertheless, as the focus of traditional means-ends value evaluation is on how the use of product/service attributes leads to goal fulfilment, rather than concentrating on the wider use experience, this approach is in a sense evaluation object-centric.

Co-creation of value in turn is proposed to correspond to value outcomes as experiences to the degree customer-firm co-creation and value as experiences coincide. As postulated by (Vargo and Lusch 2006:44): "The customer is always a co-creator of value. There is no value until an offering is used – experience and perception are essential to value determination". The linkage between co-creation processes and value outcome determination has been addressed by viewing customers as creators of their own service experiences (e.g. Rowley et al. 2007) since they provide the interpretive context of how co-creation is interpreted (e.g. Cova and Dalli, 2009) which leads to value outcome determination. Nevertheless, this way of viewing co-creation refers to the interpretational frame rather than to what is done. Vargo

and Lusch (2008) further clarify that it "always involves a unique combination of resources and an idiosyncratic determination of value (p.8). They also add that value creation is collaborative in nature and that 'value creation is an interactive process and, thus, the firm and customer must be considered in a relational context" (p. 8). Finally, they state that value creation takes place in value configurations (networks of economic and social actors). Thus, customer role in S-D logic seems to be twofold: to combine resources (value creation process) and to determine value (value creation outcomes). Perhaps because of this, Vargo and Lusch later (2008a) added an explanation that value co-creation is interactional. This means that co-creation as interaction versus co-creation as an interpretational frame can be divided according to the very dimensions proposed in this thesis: according to what is done and what is perceived as the outcomes (and how the customer comes to make these, i.e. the interpretational frame). Despite the fact that S-D logic combines value co-creation with value as phenomenological, the fit between the two is not evident, and will be discussed further in paper 4. I believe that value as phenomenological is most in line with customer value creation, since the two take place in the sphere of the customer.

Figure 7 opposes value creation processes and value outcome determination literature against each other to show how the different logics seem to fall in line. The arrows propose fit between value creation process and value outcome determination theories.
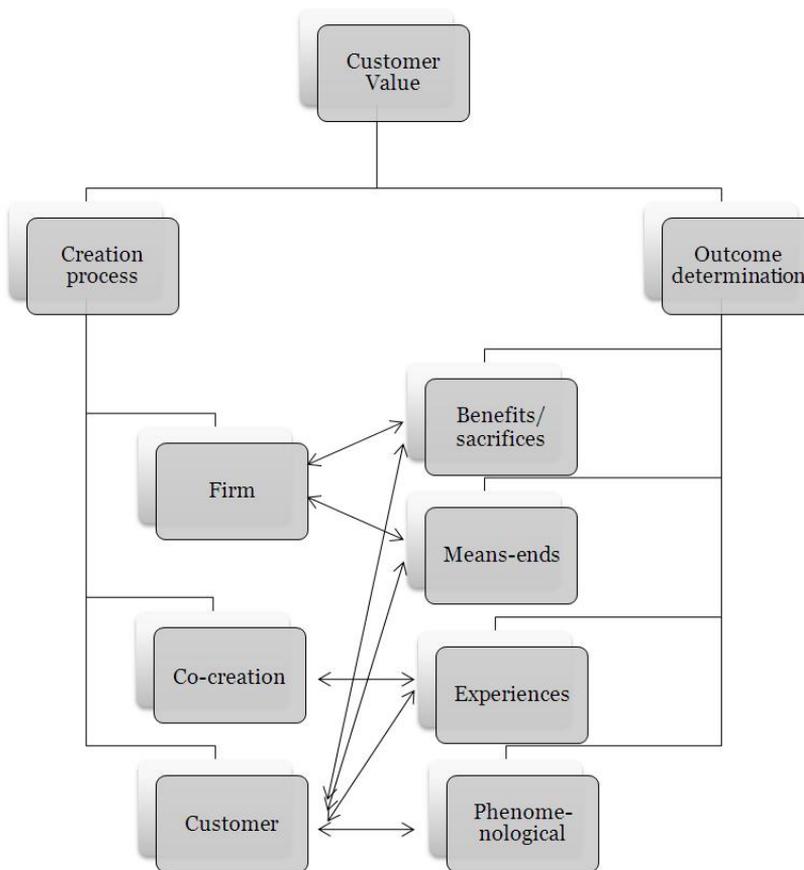
Figure 7   Matching value creation and determination literature

2.5.2. *A simplified view of value determination*

A simple way of formulating value outcome determination is illustrated in Figure 8, which proposes that value outcomes emerge from the convergence of service, the use context, and the person.
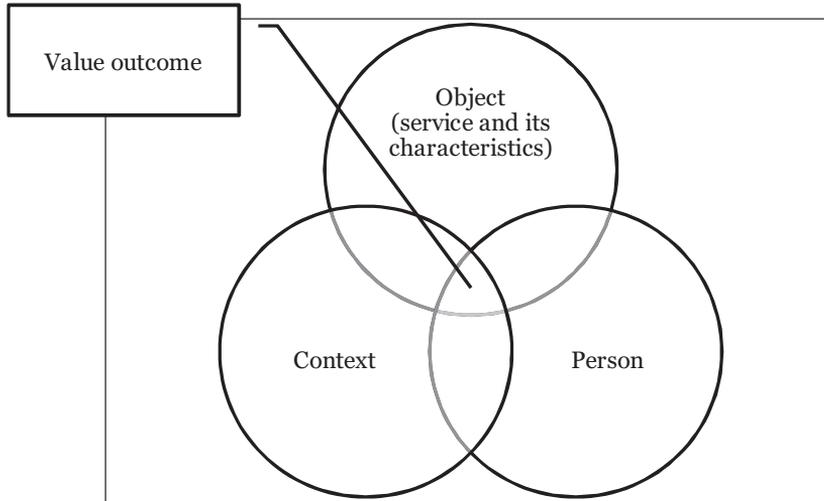
Figure 8 A simplistic value outcome determination, modified from Woodruff and Gardial (1996)

The strength of this pictorial presentation is that it captures the multiple underlying factors that may influence value outcome perceptions, including personal characteristics and values (not focused on in this study), contextual factors (explored in Article 3), and the service and its characteristics (Articles 1 and 2). Although it does not take into account how value outcome determination takes place, it is useful as a reminder of the interactions taking place between a person, the context, and the object. Thus, it can be used as a reminder of which factors to include in studies on customer value perceptions, if the aim is to identify different antecedents to value outcome determination.

3   VALUE AND E-SERVICES

This chapter discusses value in the context of electronic services and shows how the current research concentrates mainly on value determination. In addition, future research directions will be suggested. First, e-service literature is reviewed and a categorisation of e-services is presented. The aim of this section is to show what is understood by e-services, and what different types of e-services exist.

3.1.   Background

The rise of electronic services is based on two larger phenomena. On one hand, the increasing availability of service platforms offers access to customers. On the other hand, customers are at least to some degree willing to use such services. The technological developments include the rise of self-service technologies and the advances made in information communication technology, particularly the Internet. These advances have offered new opportunities to customer-firm interactions. The self-service technologies extended service and goods availability to customers (Bateson, 1985), but it was only the advent of the Internet that enabled the entire spectrum of information exchange, communication, distribution, and transactions (Angehrn, 1997) between firms and customers.

The consequences of the increased availability of service are numerous. Technology-based self-services offer customers more control over transactions and enable the management of constrained time budgets (Bateson, 1985). Collaborative and content-based filtering direct customers towards choosing offerings that may be more in line with their preferences (Holbrook and Hulbert, 2002). Also, the Internet enables self-expression in a totally new way, allowing participation in production, the development of multiple selves, and testing multiple experiences (Fýrat & Vicdan, 2008), although only a small number of individuals typically reportedly contribute to innovative work online and thus engage in co-creation activities (Kozinets, Hemetsberger and Schau, 2008).

Today, customers are also more willing to participate in co-production with companies, which according to Arvidsson (2008), is part of a bigger change in society that has taken place after the Second World War. This change is rooted in the globalising force of new media. The new media have diffused a global consumer culture to homes, increased the expressiveness of consumer goods, and moulded what individuals see as desirable. The younger, educated generations, have become to value self-realisation, and would thus engage in consumption activities to achieve the intrinsic goal of expressing who they are (Arvidsson, 2008).

3.2.   Overview of e-services

To offer a broad view on e-services, I will start by reviewing extant literature that offers a variety of e-service definitions and characteristics of different e-services. These characteristics offer insight into some of the aspects that distinguish e-services from their offline counterparts. These characteristics may at least partly be seen as derived from technology used to create and deliver these services. The similarities in characteristics across e-services may form channel-specific value propositions (value proposition refers to benefits that the customer might gain by acquiring or using an offering, and which the firm presents to the customer, see Anderson, Narus and Van Rossum, 2006). This also means that some of the value resulting from e-service use may be connected to an electronic channel rather than a specific service. The discussion is summarised into a classification framework, which delineates differences across e-services.

3.2.1. E-service definitions

Electronic services are often defined or described according to the *channel* through which the services are delivered. Channel centric definitions include e-services as "provision of services over electronic networks" (Rust and Kannan 2003, p. 38). In other words, e-service delivery can take place through any electronic network. The e-service channels consist mainly of Internet and mobile channels, but they may also refer to other technologies or technological devices used to provide services. It is here maintained that electronic services can also refer to services that are built into tangible products, such as pulse meters or intelligent home appliances, although these are outside the scope of the focal study.

Some have equalled e-services with *Internet service*: Boyer, Hallowell and Roth (2002) defined e-services as "all interactive services that are delivered on the Internet using advanced telecommunications, information, and multimedia technologies" (p. 38). This definition seems to build on the ideas around the term marketspace, referring to the "virtual realm where products and services exist as digital information and can be delivered through information based channels" (Rayport and Sviokla 1995, p. 14).

E-services have also been suggested to be *network-based*, i.e. they are by nature problem solvers that combine services from several partners (Bauer, Hammerschmitt and Falk, 2005). This means that they may be federated, i.e. they interact across domains.

Some researchers have instead used the *characteristics of e-services* to define them: Electronic services have been outlined as interactive services (Bauer et al 2005; Rust and Lemon, 2003) that are information-based (Gounaris and Dimitriadis 2003, Van Riel, Liljander and Jürriens, 2001). Meuter et al. (2000) in turn proposed that self-service technologies are "technological interfaces that enable customers to produce a service independent of direct service employee involvement" (Meuter et al. 2000, p. 50), basing their definition on the lack of personal contact.

Similar to SST literature, Fassnacht and Koese (2006) underscore the lack of personal interaction as determinant of e-service, as they emphasise the total exclusion of other than technological interaction. According to them, e-services are "delivered via information and communication technology where the customer interacts solely with an appropriate user interface in order to retrieve desired benefits" (Fassnacht & Koese 2006, p. 23). This definition excludes computer-aided customer service with employees on the other side of the technological interface (e.g. personal service through online interface). Similarly, Barnes, Dunne and Glynn (2000) point out, much of the e-services are "initiated and carried out by the consumer" (p. 89), which means that the service provider is not involved in interactions with the consumer. This growing distance between customers and service providers is proposed to lead to the decrease in social and affective components of service encounters.

In addition, some authors (De Ruyter et al. 2001) have included the *purpose of the service* for the company (a means for customer relationship management) in their definition of e-service as "...an interactive, content-centered and Internet-based customer service, driven by the customer and integrated with related organisational customer support processes and technologies with the goal of strengthening the customer-service provider relationship" (De Ruyter et al. 2001, p. 186).

Some researchers define e-services based on *the service production process and the service outcome*. Hofacker, Goldsmith, Bridges and Swilley (2007) build their definition of e-service upon Lovelock and Wirtz's (2004 in Hofacker et al. 2007) definition on traditional services. They propose that e-service could be defined as "an act or performance that creates value and provides benefits for customers through a process that is stored as an algorithm and typically implemented by networked software". Thereby, they differentiate between service production

(acts or performances realised with the help of algorithms) and service outcome (the benefits customers desire and receive).

Next, these characteristics will be investigated more closely.

3.2.2. E-service characteristics

Information technology, of which e-services are one manifestation, liberates people in four ways according to Normann (2001): in terms of *when* (time), *where* (place), *by whom* (actor) and *with whom* (constellations) things can be done. Internet and mobile platforms offer greater freedom in terms of when and where services can be used, allow people freedom to act in new ways, and also enable them to connect with others. These aspects put together, according to Normann, generate new opportunities for *what* can be done.

Two important characteristics typically related to e-services are *interactivity* and *information* intensity. In this context, interactivity refers to two-way communication which is dynamic and personalised (Hoffman and Novak, 1996). Often, e-services allow greater *personalisation* than their offline counterparts (Bauer et al. 2005), meaning that as customers provide information about themselves, firms can use the information to create targeted, personalised offerings to customers. Information is defined as "data that have been organised or given structure… and thus endowed with meaning" (Glazer, 1994:2). The information is collected, selected, organised, compiled and delivered, and it is optimally more valuable than the same information is offline (Rayport & Sviokla 1995).

Within the self-service technology (SST) literature, e-services (or self-services) are characterised by the lack of customer-employee contact and customers serving themselves. Thus, SST literature suggests a *changed role for the customer as a service producer*.

Francis and White (2004) suggested that electronic services are characterised by a *fulfilment process that takes place electronically*, and where the *object of exchange is a service*. Thus, consumers of (pure) e-services "purchase, co-produce, and consume the core service (e.g. banking, brokerage, chat/dating services) via a web site" (Francis, 2007). In comparison, offline services are those where the core service is produced offline (e.g. travel, hotel accommodation, event tickets). They also identified two other categories: Electronic goods that are purchased and downloaded online, and that include less activity from the customer as the product already exists online. Examples include software, journals, reports, and MP3s. (Francis, 2007). Offline-goods in turn refer to sales of tangible products where the acquisition takes place online, but delivery is completed offline.

3.2.3. Categorisation of e-services

E-services have been categorised according to their standing either in the eyes of the consumer (Fassnacht and Koese 2006) or their position in relation to offline services (Hofacker et al. 2007). Fassnacht and Koese classify electronic services according to the type of user interface (Internet vs. Other) and standing of the service from customer's point of view (Stand-alone vs. Supporting). Hofacker et al. (2007) in turn illustrate e-services by looking at whether they are uniquely new core services or whether they complement/ substitute existing offline services and goods.

One way to classify e-services is presented below in Table 5, and it is based loosely on the categorisation of Fassnacht and Koese (2006). As proposed by them, e-services can be divided into stand alone services and supporting services (Fassnacht & Koese 2006). In stand-alone services, the electronic service is the main benefit that the customer gets, be they content offers or pure service offers. Complex service sites usually offer both content (e.g.

news) and pure service offers (interactive tools such as pregnancy calculators). Many service sites also support traditional services by offering for instance booking services or recommendation tools.

Notably, current e-service literature does not include online peer services (also termed social media or customer-to-customer services). Instead, literature on social media or virtual communities has developed into a separate literature stream (see e.g. Kozinets, 1999; Dholakia, Blazevic, Wiertz & Algesheimer, 2009). Social media have been defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (Kaplan and Haenlein 2010, p. 61). The restriction of e-services to company domains is noteworthy, as it implies that social media, since they refer to peer-to-peer services, fall outside the domain of e-service. Nevertheless, it has been acknowledged that firms may sometimes participate in the users' social media domain (Kaplan and Haenlein, 2010).

The growing body of literature on social media has not typically taken a service perspective, but rather investigated what motivates consumers to share knowledge with others, and how customers use virtual communities (e.g. de Valck , Van Bruggen and Wierenga, 2009). Nevertheless, E-services may also include peer-to-peer services, e.g. portals hosted by companies. Therefore, a wider perspective of e-services which also includes peer-to-peer services is suggested.

Table 5   Classification scheme on b-to-c electronic services based on Fassnacht and Koese (2006)

	Desktop Internet	Mobile (excluding internet)	Other self-services
Standing of the Service (Customer' perspective) Stand-alone Services	Content offers, e.g.: News Online portals Interactive services e.g.:, price comparison agent Index calculators Peer services, e.g. virtual communities,	Content offers, e.g.: News M-dictionaries Information services Interactive services, e.g.: Location-based services M-chat	ATMs Electronic games Interactive television Vending machines
Supporting Services	Information E-payments E-Tailing E-bookings/ticketing	M-information services M-Payments M-Tailing M-Bookings (e.g. airline check-in)/m-ticketing	check-in kiosks at airports Self-checkout cash desk in supermarkets Interactive information boards in shopping centers Ticketing machines

Next, the pros and cons of e-service use are discussed briefly.

3.2.4. *E-service advantages and disadvantages*

The deployment of electronic services is often proposed to benefit both service customers and service marketers. For customers, the main benefit relates to balancing the power relationship between customers and firms. Customers are expected to be more empowered when they can access information, are able to communicate with other customers and band together, may share knowledge about firms' shortcomings, find ways to retaliate, and increase their level of expertise by relying on other customers (Pitt, Berthon, Watson and Zinkhan, 2002). Other benefits are related to greater choice and customisation (Bellman, Johnson, Lohse and Mandel, 2006), ability to compare offerings and reduced search costs (Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer and Wood, 1997), time savings, task fulfilment, ease of use, solving intensified needs (Meuter et al. 2000), and control over the end result (Liljander, Gillberg, Gummerus and Van Riel, 2006). For marketers, e-services are appealing partially because they enable more standardised service quality (Parasuraman and Grewal, 2000), and partially because they enable a more efficient way of handling non-billable, hidden services (Grönroos, 2007) that are embedded in back-office components.

Advances in technology may also provide service providers with many opportunities: it has been stated that service marketing is one of the areas to benefit from advances in technology, as there is an "increase in available information and knowledge about markets, customers, and competitors, and as a result companies can offer more, newer, and better services to satisfy specific needs of their customers" (Rust and Espinoza 2006, p. 1073). Consequently, service providers have new opportunities when customers can be served in a more effective way. At the same time, firms are facing an increasing need to differentiate themselves from competitors, since easy access to a wide array of online sites may make customers more fickle, as there is a reduced cost in finding substitutes. It is generally stated that providers gain from e-services in particular if they offer pure e-services, because the higher the level of automation, the higher the cost savings (Luarn and Lin, 2003) due to reduced human labour. In addition, some authors have suggested that relationships might be strengthened if providers succeed in offering value-added services online (de Ruyter et al. 2001).

A general limitation in the electronic service environment is the lack of multisensory experiences related to tastes, sounds, scents, tactile impressions, and visual images. Especially in hedonic consumption, products are experienced through these aspects (Hirschman and Holbrook, 1982). In the case of products with salient haptic attributes such as clothing, consumers may feel a greater need to investigate products by touching them (Peck and Childers 2000 in Childers, Carr, Peck and Carson, 2001). Indeed, Childers et al. (2001) found that if consumers perceived the sensory product information presented at a web site as sufficient, they were more likely to enjoy using the site. Salomann, Kolbe and Brenner (2006) underscored that the key challenge for self-services will be balancing the technological and human aspects. Laing, Newholm and Hogg (2009) pointed out that the Internet also challenges customers because they are faced by considerate uncertainty and risk associated with e-service use.

An interesting aspect regarding electronic service content in general is that customers have been relatively unwilling to pay for it, even when they might rate it as valuable. The concepts of value in exchange and value-in-use are helpful for explaining this phenomenon. As long as there is a large supply available (in terms of other sites providing the same content), the marginal utility of any one e-service is rather small, which leads to an unwillingness to pay for the service.

3.3. Value in e-services

In this chapter, literature on e-service value is reviewed. E-service research has followed the same logics applied in offline research, meaning that a number of different approaches exist

to e-service value. Perhaps because of this, the diversity of research approaches has also led to criticism as Mittal (2005) has accused e-research of providing incommensurable results. Nevertheless, if it is assumed that different research approaches give a richer picture of a phenomenon, as is done in the present dissertation, variety is desirable rather than problematic.

The present e-service research builds on previous offline theories and consequently, the categorisation suggested previously in the context of traditional value literature (chapter 2) of 'means-end approach', 'benefits/sacrifices', 'experience', and 'phenomenological' seems to apply well to e-services too. There are however two exceptions to this division.

Firstly, none of the studies identified within e-services take a 'value as phenomenological' approach. Secondly, there is one additional category of research, 'value as temporal and spatial'. Research within this category advocates a multidimensional view of value (e.g. Heinonen, 2004, 2009) consisting of what, how, when, and where, and it seems well aligned with the ideas of Normann (2001), i.e. that customers are liberated due to freedom of time and space (see also 3.1.2).

Internet-related value outcome research is presented in tables 6 and 7. A summary of mobile-service value research can be found in article 3. Next, Internet-related value outcome literature will be reviewed category by category.

3.3.1.   Conceptual papers on e-service value

Conceptual papers on value offer some views on value in relation to e-services. Kujala and Väänänen-Vainio-Mattila (2009) outline perceived value as a result of interaction between a user (including the user's values and needs), and the product properties, while this interaction takes place in a specific context (in line with e.g. Holbrook, 1994; Woodruff and Gardial, 1996). Grewal, Parasuraman and their colleagues (Grewal, Iyer, Krishnan and Sharma, 2003; Grewal et al., 2003; Parasuraman and Grewal, 2000) take a somewhat different view of value outcomes by emphasising the role of value in a larger framework, where value is positioned as an outcome of price and other factors, and where it is expected to lead to loyalty. In these frameworks, value is conceptualised in terms of benefit/sacrifice trade-offs. Grewal, Iyer et al. (2003) further emphasise acquisition, transaction, redemption and in-use value, and propose that on the Internet, these constitute different value components and that the Internet may impact each.

Table 6   Internet's impact on value components compiled from Grewal, Iyer et al. (2003)

INTERNET'S IMPACT ON	ACQUISITION VALUE	TRANSACTION VALUE	IN-USE VALUE	REDEMPTION VALUE
Nature of impact				
Positive	Greater reach	Best prices available	Possible online support available for the user	Internet enables redemption opportunities
	Ease of comparisons (detailed information)			
	Technical and multimedia sources of service and support			
	Some triability			
Negative	Greater perceived risk	Privacy and security losses		
		Effort and risk related to eventual returns and refunds		

These advantages are related to the Internet channel rather than a specific e-service provider, and consequently, any realised value depends on 1) the provider's ability to take advantage of these opportunities 2) the extent to which other providers offer such opportunities, and 3) the extent to which the customers find such aspects beneficial.

Next, the empirical research concerning e-service value is reviewed.

3.4.   Value outcome determination in e-services

So far, empirical studies on e-service value have predominantly taken a value outcome determination perspective, where customer evaluations of firm-produced service offerings (in particular web site user interfaces) are measured with quantitative techniques (see e.g. Lee, Kim and Fairhurst, 2009; Bauer, Falk and Hammerschmidt 2006), in particular models tested on large samples, and including value as one of many constructs. Models of this type typically place the web user interface as a stimulus and different customer reactions such as value judgements, emotions, intentions, and behavioural responses as outcomes. A typical way of modelling the relationships is a quality-value-satisfaction chain (e.g. Bauer et al. 2006), where web service quality evaluations are expected to lead to value perceptions and/or satisfaction. In addition, some studies report customer value to test the nomological validity of e-quality instruments (Parasuraman et al. 2005).

Table 7 Value research on Internet-based services part: value as conceptual, as means-end chains and as benefit/sacrifice

Authors of the source	Approach to value	Conceptual foundation of value	Dimensions (D) Antecedent (A), Benefit (B), Sacrifice (S)	E-service context	Focus	Method	Findings related to value
CONCEPTUAL ARTICLES ON VALUE							
Kujala and Väänänen-Vainio-Mattila (2009)	Value based on interaction of the user and the user's values/needs and the product properties	Boztepe (2007), various sources (p. 32)	Social, emotional/hedonistic, stimulation/epistemic, Growth and self-actualization, tradition, safety, universal	Information systems and products	Interaction of the user and an object in a specific context	N/A	N/A
Grewal et al. (2003a)	Perceived value in terms of convenience (benefits) and risk (loss side)	Dodds et al. (1991), Grewal et al. (1998)	Decision, access, purchase, benefit, post-benefit convenience (B), security, financial, fulfillment, performance, and privacy risk (S)	Online Retailing	Online loyalty framework	N/A	N/A
Grewal et al. (2003b), Parasuraman and Grewal (2000)	Perceived value as dynamic, consisting of acquisition, transaction, in-use, and redemption value	Woodruff (1997), Grewal et al. (1998)	Service quality (A), Product quality (A), Price (A)	Technology	Quality-value-loyalty chain	N/A	N.A.
STUDIES WITH 'VALUE AS BENEFITS/SACRIFICES'							
Mathwick et al. (2010)	Perceived overall value as "overall judgment of the e-service experience, derived from the perceived costs and benefits of interacting with … a system" (p. 12)	Holbrook (1999); Kleijnen et al. (2007)	Usefulness (B) and Perceived aesthetic value (B)	Internet Portal	Model of Computer-Mediated Customization Tendency	Exploratory interviews, laboratory-based excercise	Customization prone customers perceived adaptive customization to have higher overall value in comparison to customization-averse customers
Chang et al. (2009)	Customer perceived value as a result "from an evaluation of the relative rewards and sacrifices associated with the offering" (p. 428)	Oliver & DeSarbo (1988)	N/A	Online shopping	E-Service quality-loyalty chain	Online survey	Value moderated the relationship between customer satisfaction and loyalty
Rotchanakitumnuai (2008)	Perceived value resulting from service quality and perceived risk	Unknown	Quality dimensions (B), Perceived risk dimensions (S)	E-government service	E-government service value framework	In-depth interviews	Service design, website design, technology support and customer support positively related with value, performance, privacy, financial audit risk negatively related
Parasuraman et al. (2005)	"Perceived value as a customer trade-off between benefits and costs" (p. 224)	Zeithaml (1988), Zeithaml et al. (2000)	Efficiency (A), system availability (A), fulfillment (A), privacy (A)Price (M), overall value (D), perceived control (D), perceived convenience (D)	Online shopping	E-service quality framework	Online survey	Efficiency, system availability, fulfillment and privacy had a positive relationship with customer perceived value
Semeijn et al. (2005)	Online value in terms of time well spent, added value and valuable services	Unknown	E-quality evaluation (A), online value, offline value (equals offline fulfilment)	Books/CDs, computer hardware, software, e-travelling	E-quality-fulfilment-response framework	Online survey	E-quality evaluations impacted online/offline value and joy. Online/offline value and joy impacted overall satisfaction and loyalty
Harris and Goode (2004)	Perceived value in terms of value for money	Brady and Cronin (2001) and Mathwick et al. (2002)	An overall scale of service quality in terms of rated importance of multiple aspects	Online purchasing (books and flights)	Online loyalty framework	Survey	Service quality impacted perceived value, value impacted trust and loyalty
Chen and Dubinsky (2003)	Perceived customer value as "a consumer's perception of the net benefits gained in exchange for the costs incurred in obtaining the desired benefits" (p. 326)	Woodruff (1997), various sources (p. 326)	Valence of experience, perceived risk, product price, perceived product quality	Online shopping (prepurchase)	Conceptual framework of perceived customer value	Student sample	Valence of experience and perceived product quality are positively related to PCV, product price negatively
Luarn & Lin (2003)	Perceived value as composition of give and get components	Dodds et al. (1991), Zeithaml (1988)	Benefits (D), Monetary/nonmonetary costs (D)	Online travel and video on demand	Model of e-loyalty	Offline survey	Value had a positive relationship with loyalty and commitment
Anderson and Srinivasan (2003)	Perceived value in terms of value for money	Dodds et al. (1991)	Perceived value	E-retailing	Model of e-loyalty	Online survey	Perceived value moderated the relationship between satisfaction and loyalty

Table 8   E-service value research on 'value as experience outcomes' or 'Value as temporal/spatial'

STUDIES WITH MULTIPLE OUTCOME DIMENSIONS							
(a) VALUE AS EXPERIENCE OUTCOMES							
Jeong et al. (2009)	Experiential value	Pine and Gilmore, 1999, Mehrabian and Russell (1974)	Entertainment (D), educational (D), escapist (D), esthetic (D)	Online shopping	Stimulus-organism-response framework	Offline survey	Product presentation features impacted entertainment, educational, escapist and esthetic value. Entertainment impacted arousal, escapist pleasure, esthetic both pleasure and arousal. Entertainment and esthetic also direct relationship with patronage intention.
Lee et al. (2009)	Utilitarian and hedonic value	Hirschman (1984)	Consumer characteristics (compulsive buying behavior, variety seeking, price sensitivity) (A), Utilitarian value (D), hedonic value (D)	Online auctions	Consumer characteristics-value-preference-intention chain	Online survey among panel members	Consumer characteristics had varying impacts on utilitarian (UV) and hedonic value (HV), UV and HV impacted preferences & UV intention to shop
Kim et al. (2009)	Entertainment value	n.a.	Entertainment value in terms of site being entertaining to use	Online shopping	Buying environment characteristics-satisfaction-loyalty	Survey	Entertainment value had a negative impact on e-satisfaction
Ho and Ko (2008)	Customer value as functional, emotional and epistemic	Sheth et al. (1991), Sweeney and Soutar (2001)	Ease of use (A), Usefulness (A), Cost Saved (A), Self-Control (A), Customer readiness (A). Functional (D), emotional (D) and epistemic value (D)	Online banking	Model of intention to continued use	Online survey	All suggested antecedents were positively related with customer value
Golik-Klanac (2008)	Customer value as subject-object interaction, value dimensions represented by desired end-states	Holbrook (1999)	Convenience (D), efficiency (D), competence (D), confidence (D), comfort (D), appreciation (D), enjoyment (D)	BtoB communicative site	Dimensions of customer value	Semi-structured interviews, observations	Convenience, efficiency, competence, confidence, comfort, appreciation, enjoyment as value dimensions
Cai and Xu (2006)	Customer value in terms of outcome, process and enjoyment value	Childers et al. (2001), Babin et al. (1994)	Shopping outcome value (D), Shopping process value (D), Shopping enjoyment (D)	Online shopping	Model of value-satisfaction-loyalty	Survey	Process value impacted satisfaction, loyalty, and enjoyment, outcome value only satisfaction, satisfaction impacted loyalty
Overby and Lee (2006)	Utilitarian and hedonic value	Babin et al. (1994) Sheth (1983)	Utilitarian value (D), hedonic value (D)	Online shopping (Internet retailer)	Value-preference-intentions relationships	Online survey	Frequent shoppers form preference towards a retailer based on UV, HV had no impact, whereas the preference of infrequent shoppers was impacted by both UV and HV
Mathwick et al. (2001)	Experiential value "relativistic preferences held by the individuals" based on interactions "involving either direct usage or distanced appreciation of goods and services" (p. 41)	Holbrook and Corfman (1985) Holbrook (1994)	Playfulness (D; escapism/enjoyment), aesthetics (D; visual appeal/entertainment), consumer return on investment (D; efficiency/economic value), service excellence (D)	Internet (and catalog) shopping	Interaction between user-object	Customer mail survey	Consumer return on investment had a significant relationship with internet shopping preference
(b) VALUE AS TEMPORAL AND SPATIAL							
Heinonen (2009)	Value-in-use as multidimensional, consisting of what, how, when and where	Heinonen (2004), Grönroos (1982)	Technical, functional, temporal, spatial dimensions of value (D) including components of benefits and sacrifices	Online travel service	Customer activity-value relationship	Online survey among customers	Customer activity and value are positively correlated
Heinonen and Strandvik (2009)	Experienced value or value-in-use perspective	Heinonen (2004) Grönroos (1982) Zeithaml (1988)	Technical, functional, temporal, spatial dimensions of value (D)	Online travel service	Customer value as four dimensional sacrifice/benefit model	Online survey among customers	Benefits and sacrifices of value dimensions as increasing/decreasing williness to use
Heinonen (2006)	Temporal and spatial e-service value	Heinonen (2004) Zeithaml (1988)	Temporal and functional dimensions of value	Online bill payment service	Temporal and spatial value	Interviews	Identification of temporal and spatial benefits vs. sacrifices
Heinonen (2004)	Four dimensional structure of value	Grönroos (1982)	Technical, functional, temporal, spatial dimensions of value (D)	Online bill payment service	Dimensions of value	Interviews	Temporal dimension most important, followed by spatial, technical and functional value

3.4.1.   E-service value as benefits/sacrifices

Within this research stream, value is modelled as 'value for money'. The research stream offers many valuable insights.

Firstly, Van Riel et al. (2001) differentiated between core and supplementary services of a web site, where these services corresponded to the 'what' a customer gets by using a service, as proposed by Grönroos (1990). In addition, they studied the impact of the dimension 'how',

i.e. the perceptions about the User Interface. They found that customer value perceptions were dependent on satisfaction with core and supporting services, but not with user interface satisfaction. According to van Riel et al, the relative importance of service components on customers' value perceptions varies. Supporting services are closely connected to the core service, e.g. reviews that help to decide on product choice, and their use may therefore lead to better value outcomes for the customer. The use of supplementary services as a method for customer value creation has been questioned, since their importance for customers is rarely studied (Anderson and Narus 1995).

Several studies have placed value within a broader framework leading to loyalty or repurchase intentions. These studies also propose several antecedents to value. Chen and Dubinsky (2003) created a framework for predicting e-service value in pre-purchase situations. They proposed four antecedents to perceived value: valence of experience, perceived product quality, perceived risk and product price. They found that the valence of experience, which refers to emotional or attitudinal state aroused by the online experience (resulting from ease-of-use of the web site, information relevance and customer service) had a positive impact on perceived value. Also perceived product quality had a positive impact whereas product price had a negative impact as proposed. However, perceived risk had no significant impact on perceived customer value. Chen and Dubinsky propose that the role of perceived risk depends on the product category, and propose that perceived risk may have a relationship with perceived value for expensive, infrequently purchased products. Anderson and Srinivasan (2003) in turn differentiate between individual level variables and firm specific variables. In their study on e-loyalty, they reported the effect of three individual level variables, namely inertia, convenience motivation, and purchase size, and two firm specific variables (trust and perceived value) on e-loyalty and satisfaction. They did not study any antecedents of perceived value (which they measured in terms of value for money).

Also Luarn and Lin (2003) studied the role of perceived value in a model of customer loyalty, and placed it parallel to trust and satisfaction. They found that value is positively related to both commitment and to loyalty. Harris and Goode (2004) in turn proposed that value impacts trust, and found support for this relationship. Semeijn, Van Riel and Birgelen (2005) in turn differentiated between online and offline components of service fulfilment, and proposed that both are important for e-loyalty formation. Their study showed that navigation and accuracy impacted online value (measured in terms of value for time and overall value), whereas online joy depended on responsiveness and customisation. Offline value referred to proper outcomes (such as error-free delivery).

Parasuraman et al.'s (2005) work, although reported to have used the means-end framework, was classified under 'value as benefits/sacrifices' category for two reasons. Firstly, they refer to the means-end framework as an attribute-dimension-higher order abstraction chain rather than as an attribute-consequence-desired end states as proposed in means-end chains (Gutman, 1982). Secondly, they conceptualise value as a trade-off between benefits and costs (Zeithaml, 1988). In their study, they investigated the impact of e-service quality on value and other related concepts, and found that efficiency, system availability, fulfilment and privacy all had a positive relationship with value. Bauer et al. (2006) equalled perceived value as convenience and monetary benefits.

In a study of service quality-value in relation to an electronic government service context, Rotchanakitumnuai (2008) proposed four quality aspects of e-government, and five perceived risk aspects. Through qualitative interviews, he found that service and web site design, as well as technology and customer support, had a positive impact on value. In addition, he identified three types of risks: performance, privacy, and financial audit risk that had a negative relation with value.

Chang et al. (2009) studied customer perceived value and its role in an e-quality-loyalty framework. Interestingly, they proposed that perceived value is an equity-based assessment,

and that "customers are inclined to feel equitably treated if they perceive that the ratio of their outcome to inputs is comparable to the ratio of outcome to inputs experienced by the company (p. 428). They proposed that customer perceived value (in terms of monetary value) impacted both customer satisfaction and loyalty, and that e-service quality only impacted customer satisfaction.

Finally, Mathwick, Wagner and Unni (2010) studied the value of customisation, and benefits related to it. They found that consumers' have differing personal preferences for customisation, which depend on the need for control, technology innovativeness, and aesthetic appreciation.

3.4.2. E-service value as means-ends

E-service value rarely takes a pure means-ends perspective, when means-end chains are treated as attributes-consequences-desired end-states chains. However, Laukkanen (2007) applied this approach to study banking customers who had paid bills via the Internet and mobile phones. The attributes consisted of location free access, access (24/7), and technical aspects (keyboard, display). Laukkanen classified efficiency, convenience, and safety as desired end states. Efficiency was related to immediate fulfilment (i.e. being able to pay an invoice immediately) and not having to move. Convenience depended partially on the same aspects, but also on accessibility. Safety was mostly related to the technical issues, such as a poor or good visual view and the difficulty of use. These aspects point out the importance of customer freedom from the constraints of time and place, but the study also reveals the importance of safety, particularly in financial contexts.

3.4.3. E-Service value as experience outcomes

Studies that investigate value as an experience outcomes take a multifaceted view on the value concept.

Mathwick et al. (2001) studied experiential value in terms of playfulness, aesthetics, customer return on investments (i.e. CROI), and service excellence. They based their typology on Holbrook, 1994). In Table 9, the dimensions used by Mathwick et al. are compared to those used by Holbrook (1994). The bold lines demarcate the concepts employed in their research, i.e. self-oriented value (other oriented was delimitated). Holbrook's original concepts are noted with asterisks in parentheses below each concept of Mathwick et al.

Table 9   Comparison between Mathwick et al. (2001) and Holbrook (1994)

		Extrinsic	Intrinsic
Self-oriented	**Active**	**CROI** ***Efficiency**	**Playfulness** ***Play**
	Reactive	**Service excellence** ***Excellence**	**Aesthetics** ***Aesthetics**
Other oriented	Active	N/A * Politics	N/A *Morality
	Reactive	N/A *Esteem	N/A *Spirituality

Particularly interesting in Mathwick et al. is the discussion on the 'active' dimension of value, which refers to the role of the customer: "As the customer crosses the line from spectator to participant, their role shifts from one of distanced appreciation of aesthetic elements to co-producers of value (p. 44). CROI consisted of efficiency (in terms of the ability to manage one's time/making life easier), and economic value, whereas playfulness consisted of escapism and enjoyment. These dimensions bridge the e-service with the respondent's own life, extending the value from the experience of using the site to the everyday life of the respondent. Two other dimensions exist: aesthetics involves visual appeal and entertainment, and service excellence relates to the experience of using the site. Perhaps not surprisingly, Mathwick et al. (2001) found that only CROI (in terms of financial, temporal and behavioural investment) impacted customers' preference for on-line shopping on the studied site.

Within this research stream, particularly in studies concerning e-tailing, an extensive discussion on the distinction between hedonic and utilitarian value has taken place (e.g. Overby and Lee, 2006). The results from the study by Overby and Lee (2006) showed that the relationship between utilitarian and hedonic value with preference was different for frequent and infrequent shoppers. For frequent shoppers, utilitarian value only had an impact on preferences, whereas for infrequent shoppers, both utilitarian and hedonic value affected preferences for the studied Internet retailer.

Similarly, Cai and Xu (2006) divided shopping value into process value (utilitarian in terms of efficiency and effectiveness) and enjoyment value (hedonic). In addition, they included outcome value, which refers to the value of the product or service. According to their findings, only process value impacted satisfaction and loyalty, outcome value impacted satisfaction, and enjoyment value impacted neither satisfaction nor loyalty.

Ho and Ko (2008) modelled customer value on the banking context in terms of functional and emotional value, although they added an element of epistemic value, which refers to the novelty or curiosity derived from product/service use (see Sheth et al. 1991a,b). They also proposed the impact of ease of use, usefulness, and costs (saved) on value. In addition, they added self-control (perceptions of being in control) and customer readiness (in terms of role clarity, motivation, ability, and optimism). It was shown that all of these had a positive relationship with value, and value impacted the intention to continue use.

Golik Klanac (2008) studied value of BtoB communications, and found seven customer-desired end-states, which she positioned as dimensions of customer value. The dimensions consist of convenience, efficiency, competence, confidence, comfort, appreciation, and enjoyment. Of these, convenience and efficiency refer to the process aspects (effortless/fast). Competence and confidence seem to relate to increased ability, since competence corresponds to the ability to perform one's job well and confidence to certainty concerning one's decisions. Comfort and enjoyment are hedonic, since the prior refers to relaxation, the latter to pleasure. Finally, appreciation refers to a feeling of receiving special treatment.

The entertainment value proposed by Kim, Kim and Kandampully (2009) is somewhat of an abnormality within this research stream, since it refers to the effect that the elements embedded on a site have on the use experience (e.g. having appealing animation/flash intro, being entertaining to use). According to the findings, entertainment value had a negative impact on e-satisfaction, but this result could not be explained meaningfully.

Lee, Kim and Fairhurst (2009) shed light on the impact of consumer characteristics on utilitarian and hedonic value in an online auction context. Their findings confirmed that compulsive buying behaviour and variety-seeking tendency have a positive impact on hedonic value, whereas price sensitivity had a negative impact on hedonic value. Utilitarian value was solely impacted by variety-seeking tendency. Both utilitarian and hedonic value impacted preferences for online auctions equally, which is in contradiction to Overby and Lee (2006).

Finally, Jeong et al. (2009) made a similar differentiation as Mathwick et al. (2001) between passive and active participation. Building on Pine and Gilmore (1999), they proposed that entertainment and educational experiences are passive, since the customer remains a spectator, whereas escapist and aesthetic experiences are active, since the customer becomes a part of the activity. However, the dimensions or 'realms' of experiences in Jeong et al. (2009) differ slightly from those of Mathwick et al. (2001) and Holbrook (1994). The realm of education (Pine and Gilmore 1999) is unique to this study, referring to a dimension of learning and educating one self. However, it had no impact on consequent emotional responses (pleasure and arousal. Three other realms, entertainment, escapist, and aesthetic had a positive impact on pleasure, whereas only entertainment and aesthetic realms had a positive impact on arousal.

3.4.4. *E-service value as temporal and spatial*

The fourth category, e-service 'value as temporal and spatial', is specific to e-services. This literature stream by Heinonen and her colleagues (Heinonen, 2004; 2006; 2009; Heinonen and Strandvik, 2009) treats value as a multi-dimensional concept. Using the service quality dimensions of technical (the service outcome, or the 'what') and functional quality (the service process, or the 'how') as a starting point (Grönroos, 1982), Heinonen constitutes two equivalent value dimensions, technical and functional value. In addition, she comes up with two additional dimensions of value: temporal and spatial value. Temporal value ('when') is related to customer perceptions of the temporal flexibility of service use (Heinonen, 2004). Heinonen (2004) argues that the temporal dimension is particularly relevant for self-services that overcome temporal barriers, since they can typically be used without provider involvement. Spatial value ('where') in turn relates to customer perceptions of the spatial flexibility of service use (Heinonen, 2004). Thus, this model specifically addresses the freedom of time and place that is pivotal in self-services (Bitner et al., 2000).

However, the results of Heinonen's study indicated that temporal and spatial dimensions of value are hygiene factors, meaning that they are expected to exist at some particular level: exceeding this level will not lead to additional satisfaction, but going below this threshold will cause severe dissatisfaction (Heinonen, 2004). On the other hand, some articles have proposed that the use context is particularly important for m-services that are often used when other channels are unavailable. De Kervenoael, Soopramanien, Elms and Hallsworth (2006) have criticised research for neglecting personal, situational, local and household-related factors, suggesting that they should be taken into account. Therefore, it is believed that the use context, which may include also other issues than time and place, such as accessible alternatives and uncertainty (Pura and Gummerus, 2007) is clearly important for e-services. In the same line as in Internet-research, m-service research has discussed value as contextual (Lee & Jun, 2007), or conditional (Pihlström and Brush, 2008; Pura, 2005).

3.5. **Considerations about e-service value research**

E-service value research shares some commonalities with research on traditional services (e.g. Zeithaml, 1988), of which the most apparent one is the often occurring placement of quality as one determinant of value. Naturally, not all e-quality literature specifically addresses value, but this may be due to the fact that much literature is still concentrating around instrumentalisations for consumer evaluations of web sites (e.g. Loiacono, Watson and Goodhue, 2007). The large body of research studying e-quality, which is a factor that is generally agreed to impact e-value perceptions (Grewal et al. 2003; Parasuraman et al. 2005) has found that many components (of quality) are similar in traditional and electronic settings. These include responsiveness, (Bauer et al. 2006; Barnes and Vidgen, 2002), fulfilment (Wolfinbarger and Gilly, 2003; Zeithaml, Parasuraman and Malhotra, 2000) and privacy/security (Wolfinbarger and Gilly, 2003; Zeithaml et al. 2000).

Interestingly, the distinction utilitarian/hedonic, which is often made in the 'e-service value as experience outcomes' stream has referred to different levels in the offline context: a motivational level (behaviour directed by a utilitarian or hedonic motivation, e.g. Childers et al. (2001); To, Liao and Lin (2007), and an outcome level, i.e. value being utilitarian or hedonic in nature (Babin, Darden and Griffin, 1994). Babin et al. (1994) treated consumer motivation and experience outcomes as exchangeable, but others (Cai and Xu, 2006; Mittal, 2005) have criticised this, pointing out that the two are distinct. Utilitarian motivations reveal functional outcomes that consumers wish to achieve while shopping (online), such as product accessibility, convenience, or lower prices, whereas hedonic motivations tap into 'psychosocial needs beyond those relating to the product being acquired" (Parsons, 2002: 381). Parsons revealed three strong motivations for online shopping: diversion, self-gratification; and learning about new trends, and four social motivations: social experiences; communications with others sharing similar interests; peer group attraction; and status and authority.

Utilitarian/hedonic value refers to the outcomes reached, rather than the underlying motivations. Raijas (2002) pointed out that online shopping may offer benefits due to the ability to track down shopping behaviour as well as planning behaviour. Konana and Balasubramanian (2005) studied online investing and proposed three types of factors, economic, psychological and social, which would construct the phenomenon of 'online investing'. These dimensions were rooted in utilitarian and hedonic gains and trust. Their model included a complex net of factors that are included in the phenomenon. Their most interesting findings are the elements of 'pursuit of social class membership', "normative social pressures¨, 'embarrassment avoidance', and 'risk attitudes'. The social factors proposed are interesting, particularly to the degree that online actions are communicated within the wider social network of the customer.

Hartman, Shim, Barber and O'Brien (2006) in turn proposed that some behaviours are by nature hedonic, and listed hedonic Web-consumption activities such as gaming, downloading entertainment, and socialising on the net. Utilitarian web-consumption activities in turn are practical, necessary, purposeful, and/or mandatory, such as searching for information.

The determinants of e-service value have, in addition to quality-related aspects, included perceived self-control (Ho and Ko, 2008; To et al., 2007). Perceived self-control refers to increased knowledge and control over oneself. Self-control is particularly relevant in e-services, since e-services typically enable the customer to be more independent of the service provider, and have access to relevant information to increase their knowledge base. Konana and Balasubramanian (2005) implicitly pointed out that in the case of some e-services, such as online investment, customers take control by an increased degree of decision-making.

Anonymity is another aspect specific to e-service use, since typically, customers can act without being recognised, and also act contrary to traditional roles (Parsons, 2002). Other positive aspects (benefits) that are proposed to impact e-customer value perceptions are cost and time savings (Dabholkar, 2000), ease of use (Dabholkar, 2000), usefulness (Ho and Ko, 2008), customer perceptions of customer care and risk reduction, information benefits (Gounaris and Dimitriadis, 2003), enjoyment (Dabholkar, 2000), larger selection (To et al. 2007), customisation, interactivity, and adventure (To et al. 2007).

Also, aspects such as consumers' prior experiences with computers, technology and service use, as well as reference group have been found to influence customer service use either directly or indirectly through attitude in an Internet banking context (Karjaluoto, Mattila and Pento, 2002).

An additional characteristic of e-research has been pointed out by Mittal (2005): "it [existing body of research] has treated, for the most part, all web sites and all e-tailers as a singular entity" (p. 132). Consequently, Mittal (2005) has called for disaggregation of research,

including pure/brick-and-click players, portals/merchants/agent sites, goods/services e-tailers, and search/credence goods e-tailers. Similarly, Gounaris and Dimitriadis (2003) criticised the unified view on web sites, although these are likely to have their specific features. I hope that this dissertation through articles 1 and 2, where an online health care site was studied, contributed to diminishing this research gap.

3.5.1. *Value basis*

Value has been linked to different bases from where value is suggested to be obtained. These bases include the purchased product (Cai and Xu, 2006), network externalities (Chun and Hahn, 2007), web site use (Cai and Xu, 2006), or more broadly the channel in use (e.g. bricks-and-mortar vs. Internet vs. Mobile; see Dholakia and Uusitalo, 2002; Hartman et al. 2006; Neslin, Grewal, Leghorn, Shankar, Teerling, Thomas and Verhoef, 2006). Consequently, researchers can employ different units of analysis. This variability in units of analysis makes comparisons between research findings more difficult. To exemplify, value perceptions of a web site may include a halo effect of the benefits associated with the use of the Internet channel.

A question is how e-service research can address the complexity of differentiating between consequences of a particular web site use and consequences of the use of an electronic channel. To turn the question around, value can be seen to relate to the way the electronic and the offline environments complement each other. De Kervenoael et al. (2006) pointed out that "value is created through a process where the virtual fits and blend with the physical and value is transferable across channels (p. 193). An alternative way of addressing the question is probing whether the web site can compensate for offline channels, and whether it is preferable to alternative service channels. To meet these ends, Loiacono et al., (2007) introduced the terms on-line completeness and relative advantage. On-line completeness reflects the degree to which all processes can be transferred to the web, whereas relative advantage measured the perceived superiority of the web site to other channels.

3.5.2. *Special characteristics of online customers*

Online customer behaviour may have some special characteristics. Koiso-Kanttila (2005) has summarised three ways in which e-customer behaviour may differ from offline behavior: time scarcity, customer attention, and a quest for authenticity. She suggests customers increasingly experience time scarcity, which highlights the need to provide instant gratification and short down-load times. Customer attention is likewise a scarce resource, and capturing attention may require careful planning of visual elements. The quest for authenticity is likewise suggested to be important, although Koiso-Kanttila claims that the lack of face-to-face interaction, the digital nature of products, and the lack of constructed experiences compromise the potential for achieving authenticity. However, she also suggests that the Internet, particularly communities, cater for customers' desire for authenticity.

Within information technology, research has mostly used the term 'perceived usefulness', or the "users' perceptions of the expected benefits of web portal use", (Lin, Wu and Tsai 2005: 687), which is a concept clearly related to value as benefit/sacrifices. Perceived usefulness has been employed to explain customers' adoption decisions (Davis, Bagozzi and Warshaw, 1989), satisfaction, and continuance intentions (Lin et al. 2005). Finally, an area related to the expected outcomes of e-service use is technology paradoxes (Mick and Fournier, 1998; Laing et al. 2009). This means that the use of technology, including e-services, may result in contradictory outcomes. Although this area has not been extensively researched and is not typically associated with value discussion, it is a noteworthy phenomenon, since it means that the consequences of e-service use may be simultaneously both positive and negative. Consequently, e-service customers may have to find a way to balance the positive and

negative consequences of e-service use. These consequences may not readily fit into the predominant terminology of benefits and sacrifices, since the consequences may be more ambiguous, e.g. acquiring information vs. accepting uncertainty (Elwyn et al. 1999 in Laing et al. 2009). These types of complex paradoxes are more likely to emerge in qualitative studies or while studying consumer practices. For instance, Dholakia and Uusitalo (2002) suggested 'perceived stress' as one (benefit) factor of traditional and online shopping, alongside hedonic and utilitarian benefits, thus acknowledging the double nature of customer experiences.

3.6. Shift in value creation locus and e-service research

The interesting outcome of the literature review on e-service value is that the shift in value creation logics is barely visible in e-service research, except at a conceptual level. This may be due to the fact that the proposed shift from firm value creation to co-creation or customer value creation has not yet entered the e-service sphere.

The reason why one might expect a broader discussion on value creation logics in the e-service context is the increasing participation of customers in service provision, which has been addressed in particular within the self-service literature (e.g. Bitner et al. 2000). In fact, e-services are suggested to enable greater independence of service providers, which also entails that the customer has to take a more active role in service creation (Heinonen, 2009; Meuter et al., 2000). Wind and Rangaswamy (2001) similarly proposed 'redesign of marketing from the customers' perspective' (p. 14), referring to involving the customer as a partner, and redesigning marketing processes accordingly.

Prahalad and Ramaswamy (2004) pointed out that co-creation means 'allowing the customer to co-construct the service experience' (p. 8), and that in co-creation, the firm and customer jointly engage in problem defining and solving. The idea of co-constructed experiences seems particularly apt in an electronic environment, where customers could be allowed to construct the interface through personalisation, create content in discussion forums and create linkages between pages on social media.

Sawhney, Verona and Prandelli (2005) contrasted customer engagement in virtual and traditional environments and proposed six different changes in firm-customer relationships regarding innovations. They proposed that in the virtual environment, innovations become *customer centric*, whereas offline, they are firm centric. Online, customers are *active participators*, whereas offline, they are passive 'voices', inputted in firm processes. Interaction online is in *dialogue form* in contrast to one-way offline communication. Interaction is also *continuous* (versus on-spot) and *rich* since it is social and experiential (offline typically individual knowledge). Finally, in an electronic environment, the *interaction network gets wider*, since communication is both direct and mediated (offline typically direct) and broadens from current customers to potential customers as well. The idea of co-creation is thus strong in e-service research, but nevertheless, many of these papers are conceptual.

Hilton and Hughes (2008) have taken a more radical view and suggested that electronic services contain a move away from co-creation to customer value creation. They propose that in a traditional face-to-face service, customer and employee resources are combined, but in a self-service setting, the customer 'provides the main operant resource in producing the service' (p. 24). Then, the firm needs to support the customer in his/her use of these resources.

Schau, Müniz and Arnould (2009) studied how brand community practices create value, and identified four thematic categories of practices: social networking, community engagement, brand use, and impression management. In social networking practices, customers engage in welcoming, empathising, and governing to manage ties between other members. Customers

engage in impression management practices to create favourable impressions of the brand and its members outside the brand community, and they include evangelising and justifying. Community engagement practices fortify members' engagement with the brand community. These involve staking (specifying one's interests), milestoning (revisiting past experiences), badging (acquiring/adding tangible signifiers), and documenting (constructing narratives of experiences). Brand use practices refer to those instances where grooming (improving and caring for the product), commoditising (advocate brand dispersal) and customising (personal modifications) the brand take place. Importantly, Schau et al. (2009) conclude their article by contending that consumers who engage in practices can be seen as operant and operand resources (Vargo and Lusch, 2004). According to them, customer activities are "productive of value" (p. 40).

Finally, Heinonen and Strandvik (2009) claim that they take a value-in-use perspective, and base this argument on three points: they conducted the study among users of the service, the questions reflect "customer's use of service characteristics" (p. 40), and they also gather information about different features' ability to activate the user (i.e. whether a feature impacts customer interest in using the web site). This approach leaves space for improvement. If value emerges through use, the way customers use the site in their daily life and how these interactions are perceived should be studied.

Next, other research that relates to online services will be briefly reviewed.

3.7. Other related research

In this section, value research is compared with some central research approaches regarding consumer behaviour online, particularly technology acceptance literature. This is to illustrate the contribution of value research in comparison to other, related research to the understanding of customer behaviour in a technological environment.

First, a research stream within information systems research, technology acceptance literature, will be outlined briefly. The aim of this discussion is to show that there are some similarities, mainly through the concepts of ease of use and usefulness employed in technology acceptance literature.

3.7.1. Technology acceptance model

Technology acceptance is somewhat different from value research, because it aims to explain what the initial drivers of technology acceptance are, whereas value research typically explains why customers maintain relationships with firms (the value they receive from use).

Technology acceptance literature builds on the theory of reasoned action (TRA) (Ajzen and Fishbein 1980; Fishbein and Ajzen, 1975), according to which people hold attitudes about certain behaviours. These attitudes, together with subjective norms, lead to behavioural intentions, which in turn lead to actual behaviour. In the technology acceptance model (TAM), the theory of reasoned action is modified so that there are two main variables, perceived usefulness and perceived ease of use, which impact attitude towards use, and thereby behavioural intention. Intention is proposed to predict system usage (Davis, 1989, Davis et al. 1989).

An extensive amount of research has been undertaken, in particular regarding employees' acceptance of new technologies within organisations (e.g. Venkatesh and Davis, 2000), but later, TAM was extended to web site use at work (Lederer, Maupin, Sena and Zhuang, 2000), and to customers acceptance of e-services (Polatoglu and Ekin, 2001). Lederer et al. (2000)

found that ease of use consists of the ease of understanding and the ease of finding items. Usefulness in turn was a function of information quality.

Later, the TAM has been revised to account for several additional factors (Venkatesh and Davis, 2000). Venkatesh (2000) reported that ease of use was impacted by control (in terms of computer self-efficacy and facilitating conditions), intrinsic motivation (computer playfulness), and negative emotions (computer anxiety).

It is particularly interesting that Venkatesh (2000) found that perceived ease of use and usefulness of a system were mostly dependent on general beliefs about computers and computer usage (i.e. individual and situational variables), whereas actual experiences with the studied system had a smaller role. The impact of actual experience grew when the respondents had more experience with the target system, but was nevertheless smaller than the impact of general beliefs. This finding is quite contradictory with the assumptions of e-service marketing, where most studies concentrate on perceptions of the web site.

Notably, the TAM was largely built on the same notion as the TRA, i.e. that "the theory is based on the assumption that human beings are usually quite rational and make systematic use of the information available to them" (Ajzen and Fishbein, 1980, p. 5). However, the later versions of the TAM (the so called 'consumer TAM' by Venkatesh, Morris, Davis and Davis, 2003) have been modified to better capture the emotional aspects related to consumer behaviour.

3.7.2. *Customer experiences online*

In addition, Novak, Hoffman and Yung (Hoffman and Novak, 1996; Novak, Hoffman and Yung, 2000) have modelled customer experiences online, which they propose "represent the general customer experience in interactive online environments" (p. 26). They built their model around the concept of flow, which was pioneered by Csikzentmihalyi (1977, 1990, 1997 in Novak et al. 2000). They propose that the state of flow is a "cognitive state experienced during online navigation" (p. 24). Through a quantitative study, they could find that flow led to exploratory behaviour (i.e. browsing web sites for variety and being curious about them). Interestingly, exploratory behaviour was compared to task-oriented behaviour. These two terms have some parallels to hedonic and utilitarian value.

In particular, they found that recreational (i.e. hedonic) uses of the Web were related to telepresence, exploratory behaviour, focused attention, flow, and challenge/arousal. Task – oriented activities (research/shopping, finding information) were correlated with skill. They also found that the more experience a person had of using the Web, the more likely that the person was using the Web for task-oriented activities.

In the revised model of Novak et al. (2000), skill, challenge, and telepresence (feeling as if the person was absorbed to another reality), were the focal constructs associated with flow.

Novak et al. (2000) also studied online shopping experiences. Interestingly, they found that the process aspects of the web site use termed 'customer support' (e.g. easy ordering, payment, returns), were central for a compelling online shopping experience. They also found that variety and quality information was important, but reliability, security, and low prices were less influential in distinguishing the compelling online experience. This might simply mean that reliability, security, and low prices are equally important for all customers, regardless of whether they find online shopping compelling or not.

3.7.3.   Other models

There are also other studies that discuss e-consumer behaviour in terms of an attitude-intention-purchase chain and outline different factors impacting these. Dennis, Merrilees, Jayawardhena and Wright (2009) conducted a literature review to construct a model of e-consumer behaviour. As a result, they proposed a number of factors that might impact customer attitudes towards e-retailers. Factors related to the web site included web atmospherics, navigation and e-interactivity. Also consumer traits, such as gender, education, age, and income were proposed, as well as social factors. Finally, situational factors were proposed to influence attitude towards e-retailers. Notably, the situational variables proposed in their framework included convenience, variety, frequency of purchase and specific individual circumstances, which means that they were related to the site use experience (convenience and variety), and customer behaviour (frequency of purchase). In addition, they proposed that emotional states would mediate the impact of web atmospherics on attitude.

4   RESEARCH METHODOLOGY

In this chapter, the methodological choices made in this dissertation are presented. These choices are based on the assumption that the type of insight a researcher wants to achieve can be used to guide the choice of an appropriate methodology, but also a theoretical frame, rather than vice versa. First, the underlying pre-understanding of the world is discussed to clarify how the author's worldview or paradigm has changed during the process of writing (from contemporary empiricism to pluralism).

4.1.   The underlying worldview

The aim of this chapter is to present the author's underlying paradigmatic view to help the reader to interpret the research at hand. The research paradigm or world-view is "a set of linked assumptions about the world which is shared by a community of scientists investigating the world" (Deshpandé, 1983; 10). The way a researcher views the world thereby has an impact on what he/she researches and thinks is researchable, resulting in the choice of a study object. Furthermore, the world view guides the decisions about how this object of interest can and should be researched.

The research paradigm (i.e. world-view) is reflected in the ontology, epistemology and methodology of the researcher (Guba, 1990). Ontology refers to the reality that the researcher believes to exist. The second question is that of epistemology, "the relationship between that reality and the researcher" (Healy and Perry, 2000:119). Epistemology is in essence the theory of the nature of knowledge, i.e. what can be known. Methodology can be described as "the technique used by the researcher to investigate that reality" (Healy & Perry 2000:119), and methodological choices are guided by the researcher's ontological and epistemological beliefs.

Typically, research paradigms have been described as a dichotomy or continuum with extreme poles such as positivist (quantitative) and interpretivist (qualitative) paradigms (Marsden and Littler, 1996). The positivist paradigm aims to identify "regularities and relationships that lead to generalisations and (ideally) universal principles" (Gioia and Pitre 1990:590). The interpretive paradigm maintains that people construct and sustain their own realities socially and symbolically (Morgan & Smircich, 1980). Consequently, theory building aims at describing, offering insights, and explaining events "so that the system of interpretations and meaning, and the structuring and organising processes, are revealed" (Gioia and Pitre 1990:588).

As Guba has stated, "proponents of both the postpositivist and the critical theory… feel that there can be an accommodation between their positions…Constructionists, on the other hand, feel that the positivist (and postpositivist) paradigms are badly flawed and must be entirely replaced" (Guba 1990: 25). Thus, a reconciliation of the paradigms is no easy task. However, this type of strict division never appealed to me, since in reality things seldom are black-and-white. Still, it can be said that in the beginning of the research process, my worldview was that of a postpositivist's, whereas it has later evolved into a multiparadigmatic worldview.

In the next section, I aim to show how a worldview can evolve from one view to another, and that the previous paradigm is not necessarily rejected, but it can rather be seen as a necessarily evolutionary stage.

4.1.1. Beginning: Contemporary empiricism

In the early phases (as seen from the choices made in paper one, and partially also in paper 2), this research was guided by a post-positivist stance. Here, the focus was on finding research gaps through literature reviews and formulating hypotheses concerning the relationships between variables, which were then followed by hypotheses testing. As a result, theory refinements were presented. The philosophical orientation followed Hunt's description (Hunt, 2002) of contemporary or modern empiricism, which is depicted as a combination of critical pluralism and scientific realism. This approach is a combination of being open to new ideas but simultaneously facing the constant challenge of critically evaluating the upcoming ideas. Indeed, Hunt (2002) describes contemporary empiricism as open, without being anarchistic; critical, without being nihilistic; tolerant, without being relativistic; and fallible, without being subjectivist.

The foundations of contemporary empiricism can be described as follows: critical pluralism (Hunt 1991) includes that one should be open and tolerant toward new theories and methods, but nevertheless scrutinise these theories and methods critically. Scientific realism in turn captures the following views: the world exists independent of subjects perceiving it (Acton 1967 in Hunt 1991; Hunt 2002), that science should aim at creating genuine knowledge about the world, despite the fact that "this knowledge cannot be known with certainty" (Hunt 2002; 5), knowledge claims must be critically evaluated and tested to define the degree to which they coincide with the world, (Hunt 2002) and that the longevity of a theory supports the notion that the entities and structure postulated by the theory exist for real (McMullin 1984 in Hunt 1991; Hunt 2002).

The approach adapted in this thesis consequently lays foundation for papers 1 and 2: Hunt believes that a theory is a systematically related set of statements, including some law-like generalisations that are empirically testable. The purpose of theory is to increase scientific understanding through a systematised structure capable of both explaining and predicting phenomena. Any structure that has neither explanatory nor predictive power is not a theory (Hunt 2002; 7).

However, during the time paper 4 was written, I started wondering about the nature of the results gained through a quantitative survey. It became clear that the research findings were strictly bound to the choices made in theory selection and questionnaire construction (paper 1 being a quantitative study of quality-satisfaction-loyalty chain). This felt restraining, because I felt that the results of this type of study tell more about the researchers' interests than the respondents' reality. Although contemporary empiricism does not exclude the use of qualitative techniques, which can capture more of the variability among customers, it still assumes law-like relationships between entities (Hunt, 2002). I, however, doubted that these law-like relationships reveal the whole picture – rather, people are subjective beings, parts of social networks (Cova, 2003) and have different knowledge levels and skills (Vargo and Lusch, 2008). Therefore, I longed for an approach that would enable scrutiny of a phenomenon from many different angles. Towards the end, another worldview started increasingly to attract me.

4.1.2. End phase: Pluralism

The current worldview held by the author can be best described as pluralism, i.e. as multiparadigmatic (also called perspectivism, see discussion in O'Shaughnessy & O'Shaughnessy, 2009) Pluralism also exists among marketing practitioners, since research has found that they use both goods and service logics (Brodie, Pels and Saren, 2006). In a sense, pluralism is postmodern in nature, since postmodernity has been outlined as being about "producing ambivalence and pluralism" (Cova 1997: 298). Pluralism also has a linkage to service and relationship marketing through postmodernism: Addis and Podestá (2005)

contended that relationship marketing is postmodern in nature. This linkage is due to relationship marketing shifting power from the firm to the customer, while postmodernism takes the same stance by promoting absence of hierarchy.

The multiparadigmatic view can be described as "an accommodating ideology, valuing paradigm perspectives for their potential to inform each other toward more encompassing theories" (Lewis and Keleman 2002:258). Thus, it offers an approach which is open and respectful towards diverging paradigms (Lewis and Keleman, 2002). A multiparadigm approach was recently advocated by O'Shaughnessy & O'Shaugnessy (2009), who suggested that applying multiple perspectives on marketing would allow researchers to use different lenses to study marketing-related phenomena, leading to more multifaceted understanding. The multiparadigm approach may overcome the biases stemming from the underlying assumptions held by a researcher relying on a single paradigm (Gioia and Pitre, 1990). Metatriangulation is a way to build theory from multiple paradigms (Lewis and Grimes, 1999).

Although multiparadigm research has also been seen as an extension to rather than a replacement for other paradigms (Tadajewski, 2004), recently Lewis and Keleman (2002) constructed "multiparadigm inquiry" as an alternative to a single paradigm research rather than as an extension of it.

The ontology of multiparadigm approach is stratified, "assuming multiple dimensions of reality" (Lewis & Keleman 2002:258). It embraces a pluralism epistemology, which 'rejects the notion of a single reference system in which we can establish the truth" (ibid.)

A researcher subscribing to this view will use "divergent paradigm lenses to contrast ... varied representations and explore plurality and paradox" (Lewis & Keleman, 2002: 252).

In the context of electronic environments, Bellman et al. (2006) have described how the perspective taken by a researcher (that is the view shared by the contributors of a research stream) leads to different assumptions about the nature of the studied phenomenon, as well as different explanations to it. At the same time, they point out that by synthesising the different approaches, one might get the most interesting results. Thus, although they do not talk about the multiparadigm view, they clearly are in favour of one.

To conclude, a pluralist view allows the researcher to keep an open mind and investigate a phenomenon from several angles. Thus, a pluralist view may lead to a richer understanding, as is aimed for in the current dissertation. Figure 9 outlines how the multiparadigm view on the nature of customers' preferences is reflected in this thesis.

Papers 1 and 2 propose that the customer is a more or less rational decision maker. In paper 1, the customer is seen as a relatively passive evaluator of firm provided service. In other words, the firm provides an offering (a web site) which the customer then evaluates and this evaluation impacts the customer's consequent attitudinal dispositions towards the firm (e.g. trust, satisfaction, commitment). The second paper treats the customer as a more active selector of services that fit his/her needs, and suggests that customers' impact value creation by selecting which services they find to be fit resources in their value creation processes. At the same time, customers' value assessments are measured with a benefit/sacrifice ratio. Paper 3 views the customer as experiencing. In this paper, customer experiences are probed for, and customer value perceptions are expected to be lived-in and embedded in a use context.
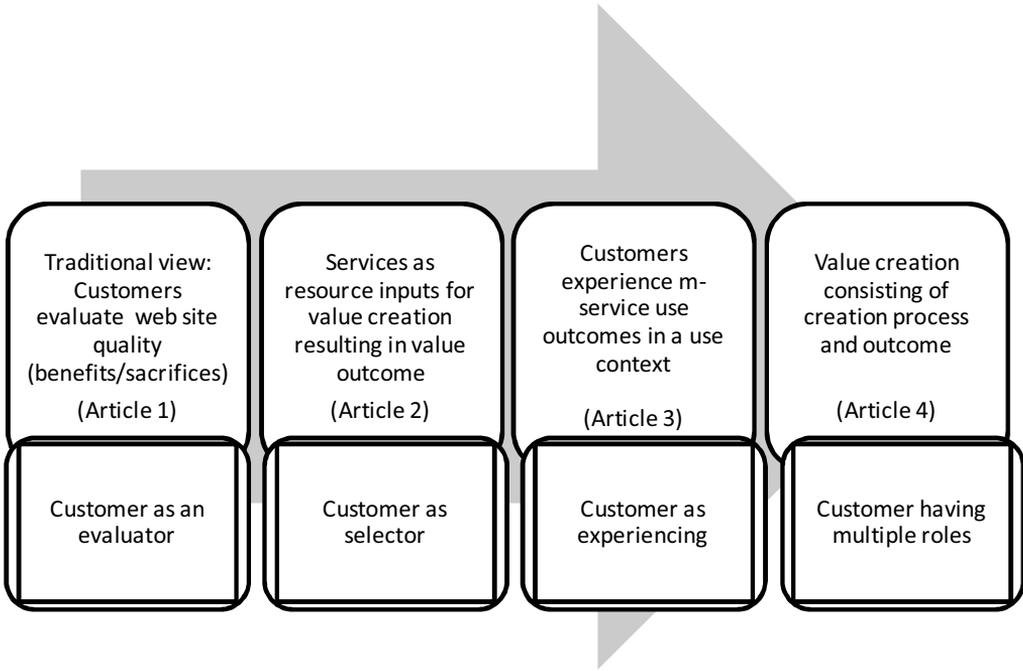
Figure 9 Evolution of the view on the customer

After having written papers 1-3, I further discovered the work of Marsden and Littler (1996), who propose that the positivist view inherently supports a firm-driven view on marketing for five reasons: Traditional marketing and marketing research (being positivist in nature) 1) divorces marketers from customers during marketing research, 2) proposes a passive view on customers, 3) segments customers from the marketer point-of-view, 4) studies what marketing "does" to people and 5) emphasises marketers as innovation creators. This criticism is related to the work of Hirschman and Holbrook (1982, Holbrook and Hirschman, 1982) who criticised the predominant view of customer rationality, but also the Nordic School of Services (e.g. Grönroos, 1994) and the Swedish School of Industrial Marketing (e.g. Håkansson, 1982) who pointed out that the traditional views of marketing suited industrial and service marketing badly (Addis and Podestà 2005).

Their criticism was a further eye-opener, since it supported my own somewhat more elusive ideas of the paradigmatic influences on marketing research. Marsden and Littler (1996) further proposed that the theories relied upon should be in line with a paradigm. A customer-centric view would according to them require an interpretative paradigm, whereas a firm-centric view would be positivist. However, I believe in visiting alternative paradigmatic worlds, depending on the research goals. Consequently, I do not believe the change in my world view makes my previous research findings obsolete. Rather, the positivist paradigm has its assumptions and interpreting the research findings against those assumptions enables drawing meaningful conclusions based on them.

4.2. Methodological choices

Next, the methodological choices made in the papers will be presented.

This dissertation project is characterised by an abductive approach. Although abductive reasoning typically refers to a circular process of going back and forth between empirical

findings and theories (Dubois and Gadde, 2002), it is here used to denote a circular approach to research objectives, previous theories and methods. Consequently, the methodological choices have evolved in par with the pre-understanding of the researcher, and the more the author has studied theories, the more the beliefs held of appropriate research methods have changed.

In papers 1 and 2, the underlying research paradigm was that of contemporary empiricism, and consequently the aim was to study the relationships between different factors, more specifically determinants of customer satisfaction with and loyalty to an online service. It was decided that a company should be involved in the study to gather real-life data reflecting customer experiences. The company that was chosen as co-operator was suitable, because it had a loyal customer base, a large number of users, a wide array of services, and showed willingness to invest in research. An online questionnaire was used to collect data. After data retrieval, the data was subjected to quantitative research methods. In paper 1, as it was important to get an overall view on e-quality and the outcomes of e-quality perceptions as well as their positioning in relation to each other, structural equation modelling, more specifically LISREL 8.30 was employed to analyse the data. Structural equation modelling is a multivariate technique, which allows for multiple dependent variables (Hair, Anderson, Tathaml and Black, 1998). Since the aim was to analyse relationships between e-quality determinants as independent variables, and satisfaction and loyalty as dependent variables (i.e. multiple dependent variables), structural equation modelling was chosen as the applicable analysis method.

In paper 2, the customers of the same company as in paper 1 served as respondents. In this case, the aim was to examine the impact of service content and service configurations on the perceptions of value of customers of e-services. In this case, multiple regression analysis was used to analyse the finding, since it allows for multiple independent variables.

Critical Incident Technique (CIT) was employed in paper 3 in order to examine perceived customer value of mobile services. At the time this research project was initiated, the value of mobile services was a relatively new research area, and CIT was chosen as the most appropriate method since it is well suited for the identification of issues not considered in previous literature (Bitner, Booms and Tetreault, 1990). Also, CIT is suitable for discovering value-enhancing service components (Stauss, 1993), and it is proposed to be capable of revealing aspects that attribute-based methods do not typically uncover (Stauss and Hentschel, 1992).

The founder of CIT, Flanagan, described the method as "a flexible set of principles which must be modified and adapted to meet the specific situation at hand" (Flanagan, 1954, p. 9). Consequently, the method can be used in different ways, although much research has used CIT to quantify incident frequencies (see Gremler, 2004).

The aim was to account for use context and value-in-use by examining real-life experiences and value perceptions in them, and thus our interest lay on value-enhancing elements. Consequently, we started by deciding the purpose of the study and formulating the questions accordingly, following the recommendations of Chell (1998), who says that "It is critically important that the researcher examines his/her own assumptions, considers very carefully the nature of the research problem to be investigated, and thinks through how the technique may most appropriately be applied in the particular researchable case".

It was decided that only positive incidents would be collected, which is in line with Flanagan´s (1954) use of the technique, since his original interview guides include examples that probe only for positive incidents (for example incidents that were 'very helpful' in meeting production schedules).

Positive incidents are those specific use situations in which the customer has perceived the mobile service as especially valuable (an approach also used by Flanagan (1954). This approach helps to identify when and why mobile services are preferred to other channels (other sources have reported factors inhibiting mobile use, causing dissatisfaction, or explaining mobile service acceptance, see e.g. Meuter et al., 2000; Rao and Troshani, 2007). The research design followed the recommendations of Flanagan (1954) and started with deciding the purpose of the study and formulating the questions accordingly. Consequently, negative incidents which typically concern those situations where the respondent's experience is dissatisfying, unpleasant, trying, difficult, embarrassing, troublesome, or irritating" (p. 73), were excluded.

The choice to study solely positive incidents was also impacted by the fact that mobile services should be marketed by emphasising the true value-adding elements of mobile service use instead of technology-oriented facts. Focusing on positive incidents provides results that give insight into how mobile services create value for customers in different situations and help to position mobile services better relative to other service channels and communicate the appropriate value propositions to potential customers.

Most importantly, CIT allows the exploration of spatial, temporal and contextual mobility, which are important for mobile services (Kakihara and Sorensen, 2001). According to the recommendations made (Edvardsson and Strandvik, 2000; Roos, 2002), an incident was accepted as critical if the customer was able to recall the incident when asked about memorable situations interacting with the service provider.

Although the number of respondents is relatively small, the use of CIT as a qualitative method means that a smaller set of incidents is researched in order to get an in-depth understanding of the data, and qualitative interviews often range between 20 and 100 (see e.g. Myers and Newman, 2007). In addition, Flanagan (1954) suggested that for simple tasks, samples between 50 and 100 would be sufficient. Due to the qualitative approach and m-service use being relatively straightforward, the sample size was deemed adequate.

The consequent analysis of the incidents gathered follows the qualitative research tradition. In other words, we employed CIT as a qualitative method to investigate not only categories, but also relationships between categories (Chell, 2004). This is different from quantitative analyses of incidents, where negative, positive and neutral incidents are distinguished from each other, and their frequencies are reported (see e.g. Meuter et al. 2000). Because of the qualitative approach, a reporting style typical to qualitative research that illustrates the relationships between constructs with illustrative quotes or stories was deemed more appropriate.

During data analysis, the use context emerged as having an impact on the service use experience, or perhaps even more so, on the criticality of the mobile medium. This led to the inclusion of the use context in the presented framework. Consequently, context was explored as a broad phenomenon in relation to value-in-use, answering the calls for research to overcome the limitations related to testing single contextual moderators. In particular Dabholkar and Bagozzi (2002) have called for more research on the effects of other situational factors and interactions between situational factors.

In the second stage of the research, more incidents were collected to see whether the findings were still valid – after all, in five years time the technological advancements in m-services are rather great. At this second phase, we could conclude that the original framework still applied, although slight modifications were made with regard to category names.

5   SUMMARY AND CONTRIBUTION OF THE PAPERS

This chapter summarized briefly the four papers included in this thesis. In Table 10, the contribution is presented paper by paper. After this, each paper is discussed separately.

Table 10 Contribution paper by paper

ARTICLE	Approach to value	Theoretical contribution	Managerial implications
Article 1: Customer loyalty to content-based web sites	Studies e-quality perceptions (need fulfilment, responsiveness, security and user interface) which can be seen as antecedents of value	Need fulfilment, responsiveness, security, and technical aspects of user interface (user interface usability not) impacted trust, which in turn impacted satisfaction and attitudinal loyalty	Customers' trust paramount for their satisfaction and loyalty. Trust can be used as an indicator to monitor changes in customer attitudes. Trust may play a similar role in other critical services such as financial advising, banking and high-involvement (e.g. bridal services).
Article 2: E-services as resources in value creation	Proposes that service content, process, and service use configurations should be treated as resources for customers' value creation processes, and investigates how these impact perceptions of value (benefit/sacrifice)	Proposes a way to study how service resources (in terms of content, process, and configuration) impact customer value evaluations. The findings suggest that customer evaluations of sites should be studied separately for each key service	Need to monitor the impact of various aspects of websites on customers' perceptions of value to identify attractive/poor services. Should encourage customers to use the most value-enhancing services.
Article 3: Context and mobile services' value-in-use	Investigate the nature and influence of use context on mobile service value, in addition to customers' more permanent value perceptions and preferences that are related to the mobile service content.	Reveals how contextual elements (in terms of time, locations, lack of alternatives, and uncertain conditions) influence the value of mobile services, since they create conditional, context-based value. Also identified emotional, esteem, monetary, convenience, and performance value-in-use.	Conditional value and the contextual elements help marketers position mobile services in relation to other electronic services, since they increase the understanding as to when, how, and why people use mobile services.
Article 4: Value creation	Differentiates between two streams: 'value creation processes' which reveal how value is created, and 'value outcome determination' which refers to what value is and how it is perceived/evaluated by customers .	Proposes 1a,b) Multiple, asymmetric perspectives on value outcomes 2a) value creation processes may be individual or shared 2b) co-creation may be asymmetric 3) value (co-)creation (activities) is linked to subjective value outcome determination through experiences 4) Unreflected experiences become reflected through triggers .	Value outcome determination is time-bound, and therefore requires constant monitoring. Due to the inter-linkages between actors, changes within the network may impact other actors' perceptions. Proposes that customer experiences are to be studied with multiple approaches. Suggests looking at customer life-world.

5.1.   Paper 1: Customer loyalty to content-based web sites

Paper 1, "Customer loyalty to content-based web sites" published in 2004 was one of the first to address e-loyalty and its proposed antecedent (e-service quality, trust, satisfaction) in the context of content-based e-services.

The importance of this paper is grounded on the need to understand the formation of customer loyalty to content-based e-services, whose income is often directly linked with customer visits. For e-service sites, keeping current customers is typically less expensive than acquiring new ones (Reichheld and Schefter, 2000), which underscores the importance of creating a loyal base of customers who keep on visiting the site. Many previously free-of-charge web sites may have to start collecting user fees in the future, which further accentuates the need to understand customer loyalty towards these services. However, the ability to maintain customers may be threatened by the diluting effect that the lack of

personal interaction has on loyalty (Selnes and Hansen, 2001). Efficient online search capability, wide selection, and low switching costs make customers viable to change providers (Devaraj, Fan and Kohli, 2006). However, it is believed that when customers show high e-quality evaluations, also their subsequent responses in terms of satisfaction and loyalty will be more positive (Semeijn et al. 2005).

At the time of this paper's publication, there were some e-quality assessment tools available for e-tailing quality (Donthu, 2001; Wolfinbarger and Gilly, 2002; Zeithaml et al. 2000), but assessing the quality of content-based services was untouched territory. Since the service offering and consequently also customer evaluations of content-based service providers' Web sites differ substantially from those of Web merchants, specific research was needed. Although there are more publications within this area today (e.g. Fassnacht and Koese, 2006), most research is still conducted on e-tailing sites (e.g. Collier and Bienstock, 2006; Parasuraman et al., 2005).

The paper further proposed that trust could be seen as a mediator between service quality dimensions and customer satisfaction. This inference was based on the idea that consumers come to trust a web site based on continuous experiences of high quality (Sharma and Patterson, 1999), although traditional service research (e.g. Parasuraman et al. 1988) had conceptualised trust as one service quality determinant among others.

The paper empirically investigated a model of the determinants of customer loyalty in an e-health context. More specifically, the relationships between service quality, trust, satisfaction, and loyalty were studied with a sample of 421 respondents. Four dimensions of service quality of a content-based web site were identified: User interface, responsiveness, security and need fulfilment. Factor analyses revealed that the user interface had two dimensions instead of the proposed single dimension. Thus, the user interface (UI) quality was split up into UI usability and UI technical functionality.

To explore the relationship between the constructs, structural equation modelling was employed. Two competing models were tested: one where trust is expected to mediate the impact of quality determinants on satisfaction and another where trust is one of the quality determinants (based on Parasuraman et al., 1988). The proposed model, one with trust as a mediator, was found to excel the other with trust as a quality determinant.

The main findings include that responsiveness and need fulfilment have a strong impact on customer trust, and user interface technical functionality has a lesser impact. Trust in turn leads to satisfaction and attitudinal loyalty (preference for the service provider). Of special interest is that trust is a higher level evaluation rather than a quality dimension as suggested earlier (e.g. Zeithaml et al. 1988). This means that trust is an outcome of the other quality components rather than one of them, and it functions as a mediator between quality and satisfaction.

This paper is linked with value research indirectly, since quality is typically proposed as an important antecedent to value (Cronin et al. 2000) or one dimension of it (Lam et al. 2004). The concept of need fulfilment is proposed to be particularly relevant in terms of value, since it reflects the degree to which an individual customer feels that a service fulfils one's personal needs, and whether the person feels that the service is targeted to users like him/her. This view is corroborated by the fact that it was the only determinant that had a direct effect (besides the effect mediated by trust) on satisfaction. In the focal study, need fulfilment was proposed as a service quality determinant, since it was suggested as a concept equivalent to customisation (suggested by Zeithaml et al., 2000 as an e-quality component). Need fulfilment also resembles 'informational-fit-to-task (Loiacono et al. 2007) which measures the degree to which a web site meets informational needs. Need fulfilment, however, measures a broader base of needs than just information and also the perceived fit between the user and the site. Notably, Herington and Weaven (2009) included a similar item,

'personal needs' in their study on e-service quality, which refers to fulfilment of personal needs and information or products that fit one's preferences. The findings of their study showed that 'personal needs' had a far stronger relation with satisfaction than 'site organization' and 'user friendliness'. Also Pikkarainen, Pikkarainen, Karjaluoto and Pahnila (2006) found that online content, in terms of how well it meets consumer needs (along with ease of use and accuracy), was related to online bank satisfaction. Consequently, it can be concluded that 'personal needs' or 'need fulfilment' requires more research.

Conceptualising e-service quality

This paper contributes to previous theory by advancing knowledge about e-service quality. It provides a definition of e-service quality for content-based services. Earlier, e-service quality was strongly equalled with e-tailing quality, which meant that the definitions were built around the exchanges of physical goods. Therefore, definitions such as "the extent to which a Web site facilitates efficient and effective shopping, purchasing and delivery" (Zeithaml et al., 2000: 11) were predominant.

To better account for content-based service quality, a new definition of e-service quality that would suit sites with informational, promotional, or supporting purposes was proposed. Accordingly, content-based e-service quality was outlined as: "The consumer's evaluation of process and outcome quality of the interaction with a service provider's electronic channels" (Gummerus et al. 2004, p.177).

Value in relation to other concepts

The paper also sheds light on the relationships between e-service quality and the role of trust in particular, as a mediator between quality dimensions and satisfaction. Thereby, it shows that trust is pivotal for content-based sites, particularly in high-risk contexts such as e-health, and perhaps also in areas such as e-banking.

5.2. Paper 2: E-services as resources in customer value creation

The second paper "E-services as resources in customer value creation" is one of the first studies to adopt the perspective of service logic to e-services. The service logic posits services as resource inputs in the customers' value-creation processes and proposes that customers are active value creators rather than passive recipients of value (Grönroos, 2006; Vargo and Lusch, 2004a,2008a). Applying a service logic approach is expected to be particularly relevant for e-service research for two reasons. First, as presaged by Hoffman and Novak (1996), online customers today are increasingly active and engage in multiple online activities such as information provision, accessing, and communication (de Valck et al. 2009; Heinonen and Strandvik, 2009). Thus, their behaviour is in line with that of active value creators. Heinonen (2009) has acknowledged this phenomenon and consequently called for more research on customer activity and service value. Secondly, treating e-services as resources opens up new lines of thought for e-service value research that tends to treat web services as aggregates (for a notable exception, see Van Riel et al. 2001). When e-services are treated as resources that are inputted into customer value creation processes, it becomes clear that the services embedded on a web site (rather than the aggregate web site) are the resources, since customers choose which services they want to use from the array of services offered by any one site. It is clear then that *the type of services inputted as resources* need to be investigated to truly understand customer value in terms of their benefits/sacrifices assessments.

These two issues (of customer activity and services as resources) come together in service configurations, which determine the value derived from using various combinations of services as resources. It is of particular interest to know whether all service configurations are

equally valuable to customers (that is, whether customers are able to select content that maximises their value creation, as proposed by Odekerken-Schröder, De Wulf and Schumacher, 2003), or whether the use of some configurations results in higher value than the use of others (for instance, if the services complement each other).

The second question relates to the *quality of the resources* inputted in customer value creation. Given that customers interact with e-service content to create value for themselves, it is logical to assume that also the evaluations of website content (the different e-services embedded on the site) should be included in studies of e-service value for customers. Despite this, extant studies on e-services have largely neglected the issue of service content (Fassnacht and Koese, 2006). The focal study fulfils this gap as it accounts for e-service content evaluations.

Against this background, the paper examines the impact of three resource inputs (service content, service process, and service configurations) on the perceptions of value of customers of e-services. This means that it is not only assumed that customers evaluate service quality (in terms of content and process), and base their value perceptions on it, but that customers actively choose the services they want, forming service configurations. In other words, the view of the customer is more active than typically assumed in e-service research.

To study the proposed relationships between e-service configurations, e-service content, e-service process, and customer value, 667 usable responses were collected from customers of a Finnish health-care website. The study found that the process aspects of usability, privacy, and responsiveness were positively related to value. Also, the service contents of the three services (discussion forums, database containing medical advice from doctors and articles) were positively related to customers' perceptions of value. The results of the study reveal the importance of the discussion forums since they had the strongest relationship with customer value. This finding is in line with the service logic, because discussion groups enable active participation in social exchanges.

The study also found that some service configurations (combinations of services) are more value-enhancing than others. The study is one of the first to demonstrate how e-service research and practice can benefit by taking a service logic perspective in which service content, service process, and service configurations are treated as input resources in the value-creation processes of customers.

E-services as resource inputs

This paper contributes to service literature by showing how e-services can be regarded as resource inputs, as suggested in the S-D logic (Vargo and Lusch, 2004a; 2008a). It is shown that both the content and process quality of an e-service site has an impact on value. In addition, it was shown that some service configurations, referring to the combination of services used by a customer, had a positive relationship with value, whereas some did not.

5.3. Paper 3: Context and mobile service value-in-use

Paper 3, "Context and Mobile Service Value-in-Use", is one of the first studies to empirically investigate the influence of use context on mobile service value in use, i.e. value as an experience. It captures a broad set of use situations and illustrates how the contextual elements embedded in these situations have an important role in influencing customers' perceptions of value-in-use.

The topic of value as an experience in association with technology-based services, such as m-services, is an area where more research has been called for (Kleijnen, de Ruyter and Wetzels, 2007; Sandström et al., 2008), since providers and marketers still lack knowledge about

value in this setting. Value-in-use refers to the experience of using a service (Holbrook and Corfman, 1985; Woodruff and Gardial, 1996). Since value-in-use is based on interaction between a user and an object (Holbrook, 1994), and is embedded in a use context (Woodruff and Gardial, 1996), context is an inherent part of the use experience that needs to be accounted for (e.g. Heinonen, 2004; Pura, 2005). To date, research has however given limited attention to the role of context, concentrating mainly on a limited set of contextual factors such as temporal and spatial issues (e.g. Vlachos & Vrechopoulos, 2008). Other contextual issues such as social and physical surroundings have received less attention. To better understand the impact of context on customer reactions such as value, more research is therefore needed (Dabholkar and Bagozzi, 2002). The focal paper thus fulfils these research gaps by exploring contextual factors and their impact on customer reactions and by investigating how value is constructed from a customer value experience perspective.

The critical incident technique was used to gather 85 positive incidents with mobile service use. The study revealed that mobile service value consists of two types of value: context value and in-use value. Context value consist of elements that are inherently linked to the service use situation, including users' perceptions of time, location, alternatives and uncertain conditions, as well as of conditional value. Conditional value represents the heightened impact of context on value-in-use. Value-in-use captures the experience of using a mobile service (emotional, esteem, monetary, convenience, and performance value). Each of the identified elements has different sub-dimensions. Based on these findings, a mobile perceived value (MPVal) framework is built.

The findings help companies better understand how mobile services create value for customers in different situations, to better position mobile services relative to other service channels, and to communicate the appropriate value propositions to potential customers.

5.4. Paper 4: Value creation processes and value outcomes in marketing theory

Paper 4 explores the conceptual foundations of value literature through a literature review on published papers on value. It concludes that value research can be divided into two streams: 'value creation processes' and 'value outcome determination'. These two main streams have different goals. Value outcome determination aims to understand customers' value assessments, i.e. how customers determine whether they perceive value. Value creation processes explicate how value is created through different activities.

After discussing these research streams separately, the paper investigates Service-Dominant (S-D) logic (Vargo and Lusch, 2004a, 2006, 2008a) and proposes that this logic entails both value creation processes and value outcome determination. However, the S-D logic does not elaborate on how these two streams are interlinked. Subsequently, the paper discusses how the streams might be interlinked, and creates a number of propositions to his end.

The main finding of the literature review is the distinction between value creation processes and value outcome determination, which enables bridging the two. The relationship between value creation processes and value outcome determination has not been addressed to the best of my knowledge in previous research. This division enriches value research by making the underlying theories more articulate, which is a worthy contribution (Addis and Podestà, 2005).

In addition, four sub-streams of value outcome determination were identified: 'value as means-ends', 'value as benefits/sacrifices', 'value as experience', and 'value as phenomenological'. Through the discussion of each of these and opening up their presuppositions, it is easier to understand which assumptions these theories are based on and what their view on the customer is. Also, each stream offers slightly different assumptions on how customers determine value related to service offerings (see Table 10).

After this, the S-D logic and its approach to value were reviewed, since the S-D logic offers views on both value co-creation and value (outcome) determination. After this, three angles to value co-creation/value outcome determination were investigated: 1) actors, 2) activities, and 3) context. It was concluded that the two streams differ in all points. Based on the discussion, the paper makes a number of propositions to advance value research and S-D logic in particular. Most importantly, it is suggested that co-creation activities, when viewed at an individual level, form experiences. These experiences in turn can become reflected through triggers. A trigger may relate to the individual's own life, to the competitive environment, or customer-firm interactions (see Roos, Edvardsson and Gustafsson, 2004).

6   CONTRIBUTION TO EXTANT KNOWLEDGE

This chapter summarises the main contribution of the thesis. First, the theoretical contribution will be presented, particularly in relation to the purpose of this study which was to investigate the underpinnings of customer value in e-services. After this, managerial implications are put forth. The chapter concludes with limitations of the study as well as directions for future research.

6.1.   Theoretical contribution

The theoretical contribution of this study is threefold and relates to the steps taken to reach the overall aim of this study. Firstly, this dissertation investigated previous offline value literature to deepen the understanding of the value concept, and to offer a more solid ground for understanding e-service value literature. Secondly, e-service literature was reviewed to map the current state of e-service literature, i.e. what has been done so far. Thirdly, e-service value was studied empirically. The theoretical contribution of each step is summarised below.

6.1.1.   *Value literature review: Value creation processes and value outcome determination*

This thesis suggests that value determination and value creation logics should be seen as separate but closely interlinked main research streams. Value determination logics discuss the outcomes customers believe they receive or experience while interacting or using services, whereas value creation taps to the process during which value is generated. This distinction has important consequences for research.

First, it is obvious that most research has concentrated on understanding simple benefit/cost structures within the value determination logic, and much knowledge has been gained about this aspect of value (see Woodall, 2003). Other possible approaches to value, 'value as means-ends', 'value as experience', and 'value as phenomenological', offer additional insights into value determination.

Looking at how value outcomes are created (i.e. value creation processes), and what the inter-linkages between value creation and value determination are, is just as important. By clarifying the distinction between the two, researchers are made more conscious about the division.

The S-D logic is further advanced by applying three angles to value co-creation/value outcome determination: 1) actors, 2) activities, and 3) context. It was concluded that the two streams differ at all points. These are summarized in Table 11.

Table 11 Differences between value co-creation and determination in S-D logic

Aspect studied	Co-creation processes	Value determination
Actors	Multiple	Single (beneficiary)
Activities	Resource integration/interaction	Phenomenological determination
Context	Network	Life-world

Based on the differences between actors, between activities and between contexts, I conclude that the abstraction level that S-D logic applies to co-creation and value determination differs, and that it may therefore be difficult to combine co-creation, which exists at network-level, with value determination, which takes place at individual level. Ultimately, the S-D logic suffers from the same problems recognised in conjunction with the resource-based view (Priem and Butler 2001a,b): value is defined by the user, but a firm is expected to use resources for the benefit of another party to realise value without understanding what that value will be (Vargo and Lusch 2008a, p. 7), since it will be determined later by the customer. However, this needs not be a major problem, when the co-creation process is seen at an individual level, as is done in customer-dominant logic (Heinonen et al. 2010) and in 'service logic' as promoted by Grönroos (2008). Then again, when S-D logic's value creation is taken to a more abstract level, the one of 'zooming out', dyads or networks can be studied.

Clearly, the real contribution of the S-D logic to value literature is igniting the interest towards networks, and studying the interconnectedness among different parties (see e.g. Håkansson and Snehota, 2006). This generates a richer picture of how markets function.

6.1.2. *The importance of experiences and reflection*

> "experience is the core of consumption... for one simple reason: experience is the decomposition of the individual's life" (Addis and Podestà, 2005:404).

This dissertation highlights the importance of understanding customer experiences, since they are the necessary transmitter between customer engagement in co-creation and determination of value. However, I believe that as long as an experience remains within a person's tolerance zone (see Parasuraman, Berry and Zeithaml, 1991), i.e. what a person finds adequate, reflection may not take place. At the same time, reflection is more likely to take place for those experiences in which the customer is highly involved because of the perceived importance of the experience. This approach is similar to that of White (1966), who proposed that "the consumer is not a passive recipient of a value already innate to a product; rather, he is a selector and an organizer of this experience" (p. 91).

6.1.3. *Increased knowledge about e-service value*

As the dissertation undertook empirical studies on e-services, it also revealed some important aspects about e-service value. These findings relate to 1) service characteristics and their

impact on subsequent customer evaluations and 2) the use context and its impact on value in use experience.

Firstly, it was shown that need fulfilment, in terms of perceptions that the site is targeted to users like oneself, and meeting personal needs, is an important factor affecting subsequent customer evaluations (trust, loyalty). Secondly, it was proposed that e-services can be viewed as resources in customer value creation, and their impact on subsequent value as benefits/sacrifices evaluations were studied. In addition, it was shown that it is worthwhile to study service content evaluations per service, as these were found to have differing impacts on customer value. Thirdly, the role of context was shown to be pivotal, in particular in the context of mobile services that are often used when the need arises on the move. Finally, the literature review on e-service value research reveals that much remains to be done regarding value in use, as well as value creation.

6.2. Managerial implications

> "I never perfected an invention that I did not think about in terms of the service it might give others... I find out what the world needs, then I proceed to invent...." (Thomas Alva Edison)

Marketing has for long embraced the view that customer evaluations about services matter – clearly, this quote from Edison reminds us that customer needs often are at the core of business thinking. However, taking a customer perspective on value does not mean that the customer would always be right or be invited to dictate how firms and customers interact. The multiple value creation logics presented in this dissertation offer an answer to the question why this is the case. Quite obviously, the answer lies in the networked nature of the world, where the actions of one party affect the outcomes for another. The issue of interdependence across customers is evident in the critique by Holbrook (2007b): "customers all too often do know what they want but want things that are personally misguided or socially dysfunctional. The worst thing you can do is listen to them, partly because what they want for themselves is bad for everybody else" (Holbrook 2007b:312). This means that since customers are part of a network of value creation, the interconnectedness will constrain what can be done with any one party.

By investigating value from multiple perspectives, the firm can get a much broader view on customer value and also of value creation at the network level. Studying customer practices may reveal what customers do with the firm's products, how they use them, when and where, and therefore offer a more multifaceted picture of the customer's everyday reality. By studying co-creation, the firm can study interactions between actors, as well as resource flows and relationship bonds, but also the firm's position within the network (Håkansson and Ford, 2002). Firm value creation again helps to investigate the firm's resources and activities, and optimise these.

By looking at 'value as benefits/sacrifices', the manager can get to grips with the aspects that are perceived as benefits, and those that are perceived as sacrifices. With the help of this information, the manager can try to increase the benefits and minimise the sacrifices.

Investigation of 'value as means-ends' may help to understand customer motivations and desires, and see how they direct customers to seek certain benefits (Grunert and Grunert, 1995), or alternatively, study how product attributes generate use consequences and end-states (Gutman, 1982; Woodruff and Gardial, 1997).

Value as experience in turn takes customer experience outcomes as a starting point, and helps identifying multiple value categories that customers may derive through the use of firm offerings.

Finally, studying value as phenomenologically determined offers a way to see how customers interpret the firm offering, and also enables the identification of the need to educate, and communicate to, customers in understanding what the firm stands for – or reveals eventual needs to re-engineer firm activities. In addition, if the firm investigates customer practices, it may recognise opportunities not easily recognisable with other methodologies.

Regarding e-services, this study has revealed a number of interesting aspects regarding how customers experience and evaluate the value of e-services. Customers evaluate web sites and the content embedded on them, and form trusting beliefs which are crucial for satisfaction and loyalty. Also, customer service use impacts their value evaluations, meaning that managers should investigate separately the impact of different services or sub-components embedded on a web site for value. Also, the dissertation shows that mobile service value is context-dependent, and aspects such as time, location, alternatives, and uncertain conditions, have a heightening impact on value in use.

In addition, mobile service users were found to experience emotional, esteem, monetary, convenience, and performance value. These contexts and value types can be used to position mobile services against other channels, but also to communicate the value propositions in different ways.

6.3. Limitations

As with all research, this doctoral thesis has its limitations. First, although this dissertation speaks for a multi-perspective approach on value, the empirical research provided falls short on this aspect, since only a fraction of value theories are employed in practice. In particular, the studies fail to report findings with the novel approaches on value such as value as phenomenological, and the papers with empirical research findings (1-3) rely on relatively traditional ways of conducting research on value. In other words, the subjective nature of value receives relatively little empirical attention, although in paper 4, the way individuals determine value is discussed.

Secondly, as value outcomes are expected to be highly person bound, they are at the same time culturally embedded. Given the studies were conducted in Finland, which is a developed country with a high level of e-readiness, the findings might not apply in other countries where lack of access, high costs of Internet usage, or restricted supply and demand may inhibit customers' use of services and impact their perceptions of value. Similarly, it is clear that the types of findings reported in papers 1-3 are generalisations, and should be taken as such. Also, the respondents do not represent the whole Finnish population, because they were either selected with convenience sampling (in paper 3) or opted in to participate in the study (in papers 1 and 2).

6.4. Directions for future research

Although the focal study clearly shows that value is a complex phenomenon, past research has often treated it in a simple way as one part of larger theoretical frameworks. Studying value determination as benefit/sacrifice ratios (see e.g. Vogel, Evanschitzky & Ramaseshan 2008) at the point of purchase (see e.g. Grewal et al. 1998) is likely to give a limited picture of value. The problem with benefits/sacrifices evaluations is that they assume rationality among respondents, and that it is enough to ask respondents to report their benefit-sacrifice evaluations of services. This is despite the fact that research has early on revealed that people "rationalise their actions and beliefs, try to justify them on moral and logical grounds" (Dichter, 1947: 439). As Woodruff (1997, p. 141) points out, "We are likely to miss important nuances of customer value if we limit customer learning to this narrow point of view".

Since the current dissertation shows that value is a complex phenomenon, it is suggested, in accordance with Flint (2006), that a richer set of methods could be employed in value research. Although it is acknowledged that in choice situations, much can be learned by looking at value as benefits/sacrifices ratio or as value outcomes, other research methods that allow more in-depth inquiries may be useful to study value as emerging within the customers' daily lives.

So far, most e-service studies have concentrated on value outcomes (a notable exception being the study by Schau et al. 2009), and therefore, it is here suggested that the biggest area of potential contributions will be around understanding customer value creation processes (Payne et al. 2008) or practices (Korkman, 2008; Holttinen, 2010), phenomenological value determination (Helkkula and Kelleher, 2010; Vargo and Lusch, 2008a), or value co-creation.

The approach which is strongly advocated by service researchers is that offerings such as e-services function in the customers' value creation processes. Normann and Ramirez (1994) explicate this: "effectiveness of an offering is related to how well it 'packages' and makes activities available for a user/consumer within a time/space unit; that is, how it increases the user's options for value creation" (p. 56). According to this proposition, an offering's value is dependent on how well it fits the customer's other resources.

De Kervenoael et al. (2006) have pointed out that value is linked to the "habits and local customs embedded within the social and household fabric" of shopping which implicitly points out the need to understand the wider context of value creation. For instance, studying customer and firm processes and their internal organisation may aid online firms to take new perspectives on their ways to work together with customers. Payne et al. (2008) have suggested that "value proposition exists in order to facilitate the co-creation of experiences" (p. 86), and called for a focus on 'value-in-use'. However, as has been discussed, most research does map 'value-in-use' in terms of customer perceptions of value outcomes of e-service use. What is still lacking is an understanding of the wider context of practices and processes and service offerings as parts of the customers' daily activities.

One interesting question to be addressed is that of value co-creation as a social construction (Edvardsson, Tronvall and Gruber, forthcoming). This view is likely to be particularly valuable for studying e-services that build on social interactions, e.g. social media sites.

Another interesting point is the notion of hyperreal experiences (Venkatesh, 1999). Edvardsson, Enquist och Johnston (2005) propose that services can be made hyperreal provided that a prepurchase service experience is able to simulate the value of the real service. As an example they give IKEA, and they propose that IKEA creates a hyperreal service experience as "the customer is able to "taste" and assess the real value –based on the real experiences through hyperreal service- prior to purchase and consumption" (p. 152). However, it might also be that these types of hyperreal services create another dimension in the customers' life world that can be visited. Then, the service experience would not be embedded in the customer's life, but rather be a parallel dimension that the customer can visit and even prefer to the mundane 'real service experience'. This point of view is particularly relevant in e-services, where the customer in reality is offered another dimension where the customer may be freed from the constraints of one's daily life. Online communities in particular offer such spaces, but also auctions and entertainment sites may create such hyperreal experiences. Of interest, then, is how to study customer experiences in such immersing environments.

Finally, an interesting avenue for future research is the convergence between different spaces: the physical and the hyperreal. Watson et al. (2002) have suggested a "transcension and integration of marketplace and marketspace (p. 339) and the creation of a new, integrated space. In this overarching environment, four marketing processes are proposed to create value for the customer: amplification, attenuation, contextual, and transcension

marketing. Amplification processes enhance consumers' consciousness whereas attenuation means reducing consciousness (e.g. relieving the consumer from tasks). Contextual processes adapt to time-space context, whereas transcension processes free users from constraints related to time and space. The aspects of contextual processes and transcension processes seem in line with our findings on m-service value. It would be interesting to study further whether firms can enhance customer value creation by amplification and attenuation.

6.4.1. Methodologies for future research

In this study, the Critical Incident Technique (CIT) was employed to study value in particular instances. This technique generates detailed information on the use experience, including service attributes and situational factors, although it is not very effective in capturing long-term value generation processes. Still, in services that are consumed instantaneously (e.g. transaction-oriented services), the CIT reveals context-specific motivations that may not be revealed with general interviewing techniques and means-ends objective mapping, and is therefore a good method for exploring underlying value perceptions.

An area where much remains to be done is customer value creation. As shown in the recent article by Shau et al. (2009), interesting findings can emerge from looking at the practices customers undertake in their consumption-related activities. Flint (2006) suggests symbolic interactionism that concentrates on "dynamic use, interpretation and changing meanings of symbols within social interaction" (p. 351). It is unclear to what extent more mundane service use can be researched within this paradigm, since SI perspective is interested in social interactions that are symbolic, i.e. bear meaning as interpreted by others or by the symbol user. Thus, it looks at practices, adjustments, communications and self-other monitoring of humans, as the human is seen as "an active creator of self and society (Flint 2006, p. 353). Nevertheless, SI perspective may be a useful tool for inspecting customers' use of e-services in the social media environment, for example social networking sites.

The early work of Dichter (1947) may also be used to understand customer reactions towards different stimuli, in this case e-service use. In fact, he suggests a multi-method approach, in which a researcher studies the stimulus (in this case e-service) with the help of content analysis and investigates the scripts. The individual analysis consists of a depth interview which aims to open up the respondents motivations for the interviewer and the respondent. Due to this insight-generating nature of the technique, it can be termed as an introspective method. Finally, the stimulus-respondent processes are explored. As pointed out by Dichter, the processes of e.g. identification, frustration, and catharsis need to be inquired into. In particular, what is the component within the stimulus that awakens the processes and what is the nature of the process in question.

Customer and firm roles in value creation could also be studied by exploring customer and company roles with the help of role theory (Biddle, 1979; Solomon, Surprenant, Czepiel & Gutman, 1985). It fits particularly with the notion of consumer practices, since role behaviour is framed as "ritualised, learned behaviour" (Solomon et al. 1985:108).

In order to understand value creation from a customer point-of-view, it is necessary to investigate how customers use services in real life service contexts. Here, it is suggested that by studying customers' practices or activities, the ways of doing things that can be more or less mundane are revealed. Research could focus on patterns of doing things, problems and unmet needs hidden in the practices, and these could reveal important opportunities for firms to tap to customers' everyday lives.

In addition, previous research has been criticised for measuring short-term performances and their causes, and neglecting long-term performances and causes (Woodruff 1997). Baker, Parasuraman, Grewal and Voss (2002) suggested that research attempts should be devoted

into investigating value perceptions (i.e. value determination) at different stages of the purchase process. The same applies for value creation: taking a long-term approach, more could be done to understand the complexities of value creation processes.

A major restriction that future research should try to overcome is the predominant, narrow way of looking at customer online behaviour: previous research has often treated e-service use as a separate domain rather than as an inherent part of customers' daily lives. It is, however, unlikely that customers would view their online behaviour as a separate part from the rest of their consumption behaviour. Rather, it is likely that customers' online activities are intertwined with a broad set of other activities. A broader view of customer lives could therefore be taken by studying e-services embedded in customers' everyday activities. This would require sessions, where the customer would go about her normal online activities, and engage simultaneously in explaining what he/she does, or by participant observation where the researchers participates in the consumer's everyday life and observes the consumer. Another option would be to collect data with e.g. eye-tracking device or video recording, and then go through the behavioural patterns recorded together with the customer. Also consumer produced mind-maps or collages might be used to reveal the relationship between e-services and offline services.

Also, future research should consider when customer online behaviour is individual, and when it is shared. Depending on the studied phenomenon, then, research could take a community (see e.g. Cova, 1997) or a group of people (e.g. a family) as a unit of analysis. This way, researchers might find out more about value determination and value generation at group level.

Another aspect rarely discussed by value research is the value-creating systems in which the relationships and positions of firms are pivotal. In an electronic environment, the connectivity and interactivity make relationship activities simultaneous, synchronous and reciprocal (Normann, 2001), and therefore challenging to study. Nevertheless, such relationships could reveal the dynamism embedded in relationships.

6.5. Epilogue

After completing this dissertation, I feel the need for a final remark. The fact remains that as academics, although we build on previous research, it is recent research we tend to look at, not historical research (Petrof, 1997). Consequently, there is a tendency to identify smaller and smaller research gaps, but also get overly excited about new theories – or what are claimed to be new theories. Therefore, we might get stuck to existing ideas, forever building on them, rather than taking a step backwards and wondering what we should do, what is worthwhile to study, what is not quite known yet, and what kind of knowledge we should create. The great difficulty, then, is to be able to turn the gaze from the miniscule parts to the big picture, from the most recent to the historical. This dissertation casts doubt whether the current e-service research is really doing this, or whether it is just applying whichever theories are at hand to yet another setting.

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APPENDIX 1   CONTRIBUTION OF THE AUTHOR IN EACH PAPER

Paper No	Authors, Title, Publication and Publication Year	Authors' contribution to the paper	Contribution of the paper to the Dissertation
1	Gummerus, J., Liljander, V., Pura, M., van Riel, A., "Customer Loyalty to Content-Based Web Sites: The Case of an Online Health Care Service" Published in Journal of Services Marketing, 2004.	Gummerus, J. (70%): Planning of the study, introduction, theory, collecting data, data analysis, conclusions Liljander, V. (15%): Planning of the study, preliminary analysis of the data, participated in revising the paper Pura, M. (5 %): Participated in planning and realization of the online survey Van Riel, A. (10%): Preliminary analysis of the data, copy-editing the paper	The paper is one of the first to explore the relationships between e-service quality, trust, satisfaction and loyalty of content-based e-services. The concept of need fulfilment is a reflection of value evaluation of the personal relevance of the site, and it is shown to impact trust and satisfaction.
2	Gummerus, J., "E-Services as Resources in Customer Value Creation: A Service Logic Approach". Published in Managing Service Quality, 2010.	Gummerus, J. (100%): Individual work	Investigates value creation and customer value perceptions in line with service logic's view of services as resourced inputted in customer value creation processes. The study shows that both resource (e-service) type and resource quality impact customer perceived value.
3	Gummerus, J. and Pihlström, M., "Context and Mobile Service Value-in-use". Unpublished manuscript.	Gummerus (60 %): Planning of the study, introduction, theory, collecting data, coding the data, creating the framework, analysis and conclusions Pihlström (40 %): Planning of the study, collecting data, coding the data, creating the framework, analysis and conclusions	Explores the role of context in customer value experiences with the help of critical incident technique. It reveals four types of contexts (time, location, lack of alternatives and uncertain conditions). It shows that these lead to conditional value when they increase value-in-use, which consists of emotional, esteem, monetary, convenience and performance value
4	Gummerus, J. "Value Creation Processes and Value Outcomes in Marketing Theory – Strangers or Siblings?" Unpublished manuscript.	Gummerus, J. (100%): Individual work	Reviews value literature and investigates the relationship between value creation and customers' determination of value. Based on the investigation, puts forth a number of propositions to advance value research.

APPENDIX 2   PAPERS INCLUDED IN THE DISSERTATION

PAPER 1:

Gummerus, J., Liljander, V., Van Riel, A. Pihlström, M. (2004), "Customer Loyalty to Content-Based Web Sites: The Case of an Online Health Care Service", Journal of Services Marketing, Vol. 18 No. 3, pp. 175-186.

PAPER 2:

Gummerus, J., "E-Services as Resources in Customer Value Creation: A Service Logic Approach", Managing Service Quality, Vol. 20 No. 5, pp. 425-439.

PAPER 3:

Gummerus, J. and Pihlström, M. "Context and Mobile Service Value-in-use". Unpublished paper.

PAPER 4:

Gummerus, Johanna, "Value Creation Processes and Value Outcomes in Marketing Theory – Strangers or Siblings? Unpublished paper.