

Olli Kaaronen

**EXPLORING THE ELEMENTS FOR VALUE CO-
CREATION IN CONSUMER INFORMATION SYSTEMS
IN B2B CONTEXT: A CASE STUDY ON THE BUSINESS
EVENT INDUSTRY**



JYVÄSKYLÄN YLIOPISTO
TIETOJENKÄSITTELYTIETEIDEN LAITOS

2014

TIIVISTELMÄ

Kaaronen, Olli

Exploring the elements for value co-creation in consumer information systems in B2B context: A case study on the business event industry

Jyväskylä: Jyväskylän yliopisto, 2014, 79 s.

Tietojärjestelmätiede, pro gradu -tutkielma

Ohjaaja: Tuunanen, Tuure

Tämä tutkielma tarkastelee arvon yhteisluontia verkkopalvelussa B2B-kontekstissa käyttäen tutkimuksen toimialana kaupallisia seminaareja ja koulutuksia. Viitekehyksenä tutkimuksessa käytetään arvon yhteisluonnin mallia kuluttajatietojärjestelmissä (CIS), jolla nähdään ammatillisten seminaarien ja koulutusten järjestäjien ja osallistujien (n=22) arvoja ja motivaatioita tapahtumiin osallistumiseen sekä tutkitaan myös mitkä ominaisuudet koetaan tarpeelliseksi toimialan tapahtumien promootioon perustuvaan verkkopalveluun. Tutkimuksen tavoitteena on tunnistaa arvon yhteisluonnin elementit sekä mahdollisia eroavaisuuksia verkkopalvelun B2B-käyttäjän käyttötarpeissa sekä järjestelmän käyttökokemuksessa verrattuna B2C-käyttäjään. Tutkimuksen tuloksena huomataan järjestäjien ja kävijöiden ydinarvoina tapahtumiin osallistumiseen olevan oppimistavoitteet, kaupalliset tavoitteet sekä sosiaalisuus. Tuloksissa nähdään myös se, että järjestäjät hakevat verkkopalvelun käytössä työtahokkuutta ja utilitaristisia arvoja kun taas kävijät etsivät palvelusta enemmän ilonpitoa ja nautintoa eli hedonisia arvoja. Lisätutkimusta olisi syytä tehdä, jotta tunnistetaan lisää mahdollisia vaikuttavia ominaisuuksia arvon yhteisluontiin B2B-kontekstissa.

Asiasanat: arvon yhteisluonti, business to business, verkkopalvelu, kuluttajatietojärjestelmä, kaupalliset seminaarit ja koulutukset, B2B-konteksti, kaupallinen tapahtumatuotanto

ABSTRACT

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Jyväskylä: University of Jyväskylä, 2014, 79 p.

Information Systems, Master's Thesis

Supervisor: Tuunanen, Tuure

This thesis examines how value is co-created in an online service for a particular case industry of business event industry in B2B context. Consumer Information Systems (CIS) framework is used describing framework to study business event organizers and participants (n=22) of what they value in business events and what types of features would be desired in an online service dedicated to business event promotion. The goal of the research is to identify co-creation elements when using an online service system and to find out in what ways the use experience and use purposes may differ with B2B-users compared to B2C-users when using a consumer information system. The core values and objectives that emerged from the case study that respondents have while attending to business events are learning, economical and socializing. The results reveal that in an online service the event organizers seek for work efficiency and utilitarian values while the event participants seek more hedonic values such as fun and enjoyment. Further study should be conducted in order to distinguish more possible qualities affecting the co-creation of value in B2B-context.

Keywords: value co-creation, business-to-business, online service, consumer information system (CIS), business seminars and trainings, B2B context, business event industry

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1 INTRODUCTION

The aim of this study is to explore what creates value and how business-to-business (B2B) customers perceive value by using a consumer information system (CIS) and to provide ideas on how CIS providers can improve their services in order to gain higher customer engagement and consequently better selling results. Because the service logic of marketing is dominated by a metaphorical view of value co-creation, the roles of service providers and customers remain somewhat analytically unspecified without a theoretical foundation for value creation and value co-creation (Grönroos, 2012). Combining the service science to marketing science is essential in both academic and the commercial world today since one of the key questions today is service systems being able to optimize interaction and co-creating value with customers (IfM & IBM, 2008).

The world is becoming dominated by services with more than 70% of the Gross Domestic Product (GDP) being generated by services (Ostrom et al., 2010). The shift to service-oriented economy (Vargo & Lusch, 2010) has caused a trend in service research to consider new ways of enhancing the design and development of digitized services (Ostrom et al., 2010). Tuunanen, Myers and Cassab (2010) defined consumer information systems (CIS) as having enabled consumer value co-creation through the development and implementation of information technology enabled processes that integrate system value propositions with customer value drivers. The notion of co-creation of value with CIS users is also said to be particularly relevant, because it disrupts the traditional view of information systems development (Tuunanen et al., 2010.).

Consumers today are also said to become active participants in the production of goods and services (Ostrom et al., 2010) and therefore become co-creators of value (Vargo & Lusch, 2004). However, research on value co-creation through consumer information systems is often concentrated on business to customer (B2C) aspect instead of expanding the view to business-to-business (B2B) customers (Grönroos, 2012). However, examples of excellent added value in an online environment can also be found in B2B markets where it is stated that B2B users look for more efficiency in their work whereas B2C users look to add efficiency and hedonic value in their life (Chaffey & Smith, 2013). With the small- and medium-sized business (SMB) market growing rapidly, it is no

wonder that B2B companies are eager to find effective services and approaches to reaching this market (Wollan et al., 2013).

Identifying the elements of value co-creation for B2B customers in specific may differ from the traditional views, which is why this study is conducted. As the areas of B2B-studies are being underrepresented in service research, there is a growing need for more work (Ostrom et al., 2010). In this study there research combines both information system (IS) service and the value co-creation concept taken from marketing literature to give insight and define the possible qualities affecting the value co-creation for B2B customers. Analyzing the value co-creation from the business-to-business perspective might support a systematic, analytical definition of the business-to-customer value co-creation.

The thesis is conducted as a case study done with “laddering study” methods (Peffer, Gengler & Tuunanen, 2003) using thematic clustering of interview data. The case industry in this study is business convention industry and the interviewees are both business event organizers and business event attendees with the focus being on former group. E-commerce and online ticket selling services have the potential to overcome the efficiency of the traditional face-to-face B2B-selling and therefore it is valuable to understand what the factors for online success are.

Online auctions for hotel rooms and airline reservations are just one example of the growing phenomenon of online value co-creation web sites. As Gummesson and Polese (2009) mentioned in their published paper “B2B is not an island!” that there is room for numerous in-depth case studies in the B2B value co-creation field. Chaffey and Smith (2013) also stated that B2B business could be seen as the field that is less talked about, but with the most transactions. Ostrom et al., (2010) added that as the areas of B2B-studies are being underrepresented in service research, there is a growing need for more work.

1.1 Objective of the thesis

The main objective of this research is to evaluate the framework for value co-creation in consumer information systems from B2B customer standpoint. Furthermore, this work takes a step toward bridging the gap in information system development and B2B service value co-creation by conducting laddering interviews for both business event organizers and attendees. A point of interest is to understand the value propositions by the organizers and value drivers for attendees. The research problem is a need to discover the requirements to co-create value with B2B customers in a consumer information system. The main research question is:

- *How do the elements of value co-creation in a consumer information system differ in B2B-context compared to B2C-context?*

In order to answer the main research question an additional research question should be added :

- *What are the known value propositions and value drivers in the business event industry?*

The study takes an interpretive approach to evaluate the Framework for Value Co-Creation in Consumer Information Systems (Tuunanen et al., 2010) from the context of B2B customers. The purpose of this study is to provide new information in B2B context to the aforementioned framework.

1.2 Thesis outline

In the introduction the idea and the basis for this research are presented. This includes the research questions and the motivations for conducting the study. The case industry, the framework for the study and the research methods are presented in detail later in the study. The second chapter gives a definition to service as a concept with also presenting service science (Maglio & Spohrer, 2008; Ostrom et al., 2010) that is used in the IT industry research, understanding information systems as services (IfM & IBM, 2008; ITIL, 2007), the service dominant-logic (Vargo & Lusch, 2004; Grönroos, 2007; Payne, Storbacka & Frow, 2008) used in marketing literature. Finally, the chapter presents the concepts of customer value (Vargo & Lusch, 2004) and value co-creation (Prahalad & Ramaswamy, 2004) with focus being on the latter.

The third chapter presents the value co-creation framework conducted by Tuunanen et al. (2010), which is divided into two sections: Consumer Information System Value Propositions and Customer Value Drivers. The chapter will explain the framework as a whole and then go through the six factors of the framework that are drawn from literature based on IS science and marketing research. Finally there is a look at value co-creation in B2B context (Grönroos, 2011). The fourth chapter explains how services have transformed into digital services (Williams, Chatterjee & Rossi, 2008) and how digital value is created (Chaffey & Smith, 2013). The chapter also defines online portals (Muyngsin & Byungtae, 2005) and looks at how the digital services have been operating in the business convention industry.

In the fifth chapter the research methodology (Peppers et al., 2003; Tuunanen et al., 2010) and the case industry (Davidson & Rogers, 2012) are presented in more detail. This chapter explains how research data was collected and discusses research the methods used. Research aims and research questions are presented more closely in this chapter. Also the stimuli and the semi-structured interview results and the data validations are being presented. Finally, the data analysis methods are gone through in more detail.

The sixth chapter focuses on the laddering interview findings. The interview results and the data distribution across the interview themes are presented and analyzed. Finally, to provide a graphical illustration of all themes, there are

theme maps to illustrate the causality between attributes, consequences and values. The seventh chapter has discussion on the findings. The first part of the chapter addresses the research question and objectives. Then the implications to research will be stated and also there will be a look the weighting of CIS elements in this study. Finally, the chapter will give implications to practitioners.

The final chapter contains a summary and conclusions for the study. It summarizes the outcomes of the studies and links the findings to the research objectives and research questions. Any limitations of the study are addressed and finally there are recommendations for future research topics.

2 OVERVIEW TO SERVICE AND VALUE CO-CREATION

This chapter gives background to service as a definition with also presenting service science used in the IT industry research and the service dominant-logic used in marketing literature. In more detail this chapter examines services as a system and modularity of service design in short to give a better understanding of information systems as a service. There is also a look behind the definition and the origin of service dominant-logic and how it can be implied into information technology. The chapter also presents value creation and co-creation with focusing on latter. The origin of the term value co-creation will be defined and there will be a look at value co-creation in business-to-business context.

2.1 Service as a definition

Ted Hill (1977) in his paper "On goods and services" defined the term service as being "a change in the condition of a person or a good belonging to some economic entity, brought about as the result to some other economic entity, with the approval of the first person or economic entity". In the 1980s the quality of service provided by IT companies to UK government was of such impotent level that the Government developed a standard approach for an efficient and effective delivery of IT services and consequently ITIL or Information Technology Infrastructure Library has been publishing a set of standards and frameworks for IT service strategies and service lifecycles (ITIL, 2007.).

IBM has also been a frontrunner in conceptualizing service research and recommended a more broad definition of service in a research paper published in 2007. They suggested a definition that involved both traditional product service, as well as new services targeted at improving the end-user experience and the customer's perception of value. IBM researchers have also stated the service systems in society are inefficient and not innovative enough from the customer's perspective (IfM & IBM, 2008.). In a research conducted by IfM and IBM (2008) a short definition to service was suggested to mean provider-customer

interaction that co-creates value. In the recent years there has been more talk about service computing, which refers to the use of information technology (IT) to support customer-provider interactions, including topics such as: web services, e-commerce, service-orientated architectures, self-service technologies and software as a service (IfM & IBM, 2008.).

The concept of “customer self-service” is dominant in e-commerce, since it enables the customers to obtain information faster and also save the business money (Chaffey & Smith, 2013). Terms products and service have been traditionally linked to each other even though product has typically been referred as a tangible good by academics and service has been seen more as an intangible object. All in all, there is a wide selection of service definitions that can be found from the academic literature in trying to explain this concept. Some examples of the modern service definitions can be seen summarized in the TABLE 1 below.

TABLE 1 - Modern service definitions

AUTHOR (S)	SERVICE DEFINITION
Vargo & Lusch (2004)	“Services are the application of specialized competences (knowledge and skills) through deeds, processes and performances for the benefit of another entity or the entity itself”.
Edvardsson, Gustafsson & Roos (2005)	“Service is a perspective on value creation rather than a category of market offerings and the focus is on value through the lens of the customer. The co-creation of value with customers is key and the interactive, processual, experimental, and relational nature form the basis for characterizing service”.
Grönroos (2006)	“Services can be seen as processes that consist of a set of activities which take place in interactions between a customer and people, goods, and other physical resources, systems and/or infrastructures representing the service provider and possibly involving other customers, which aim at solving customers’ problems”.
Kotler & Armstrong (2007)	“Any activity or benefit that one party can give to another, that is, essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product”.
ITIL (2007)	“A service is a means of delivering value to customers by facilitating outcomes the customer want to achieve without the ownership of specific costs or risks”.

Vargo and Lusch (2004) said that service is the application of competences through different deeds and processes for the benefit of others. This doesn’t differ a lot from the Grönroos (2006) view where he states services being a set of

activities between customer and the service provider. In the widespread *Principles of Marketing*, Kotler and Armstrong (2007) define service being intangible that doesn't result in ownership of something. This is something that ITIL (2007) also stated and added that the customers can achieve wanted outcomes without taking ownership in any specific costs or risks. Also ITIL added (2007): "Services enhance performance and reduce the pressure of constraints. This increases the desired outcomes being realized". ITIL defined service management as a set of specialized organizational capabilities for providing value to customers in the form of services. Service management is a part of service systems giving the management tools and methods manage service activities (IfM and IBM, 2008). This research uses the Edvardsson et al. (2005) definition as a guideline:

"Service is a perspective on value creation rather than a category of market offerings and the focus is on value through the lens of the customer. The co-creation of value with customers is key and the interactive, processual, experimental, and relational nature form the basis for characterizing service".

2.2 Background to service systems

Maglio and Spohrer (2008) continued the Vargo and Lusch thinking and defined the service science to meaning the study of service systems. Chesbrough and Spohrer (2006) stated in a research manifesto for service science that the intangible nature of services and the scale of modern B2B IT systems result in a level of coordination complexity and the provider and the customer might not have the same knowledge in the exchange. The provider lacks the contextual knowledge of the customer's business and the customer lacks the knowledge of the full capabilities of the provider's technologies. They added that the service transaction for the product transaction, because the exchange is co-generated by both parties and the process of consumption is an important part of the transaction. Often the consumers are intimately involved in shaping and producing the service (Chesbrough & Spohrer, 2006.).

Ostrom et al. (2010) defined service science as an emerging field of research that focuses on fundamental science, models, theories and applications to increase service innovation, competition, and well being through co-creation of value. Service science combines organization and human understanding with business and technological understanding to create a foundation for systematic service innovation (Maglio & Spohrer, 2008). Today the service science is emerging as a distinct field of study to get a more integrated view of services (IfM & IBM, 2008).

Maglio and Spohrer (2008) said that service dominant-logic provides just the right perspective, vocabulary and assumptions on which to build a theory of a service system. They argued that service dominant-logic can be the philosophical basis of service system and also the service system could be the basic theoretical construct of service science as a whole. Maglio and Spohrer ex-

plained service systems as value co-creation configurations of people, technology, shared information and value propositions through internal and external service systems.

Closely related to service science and service systems is the term service ecosystem which according to Vargo and Lusch (2011) is a new shift to service-dominant logic thinking that implies a dynamic structure of loosely based value proposing social and economical actors that interact through language, technology and institutions. According to Vargo and Lusch the purpose of the service ecosystem is to (1) co-produce service offerings, (2) engage in mutual service provision and (3) co-create value. The service ecosystem helps to understand the nature of value creation through different networks and relationships (Vargo and Lusch, 2011.). ITIL (2007) published a guide on service lifecycle and described the value of a service (see FIGURE 1 below) coming from combined capabilities (management, organization, processes and knowledge) and resources (capital, infrastructure, applications and information).

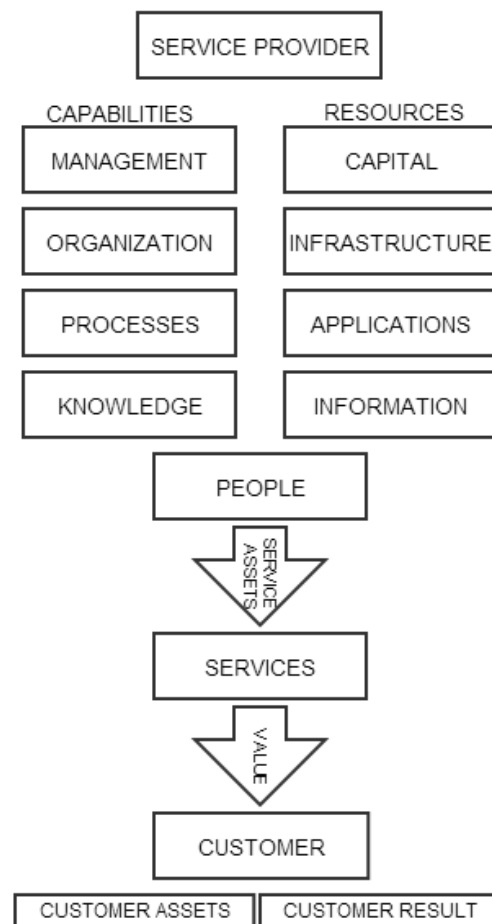


FIGURE 1 - Resources and capabilities are the basis for value creation (ITIL, 2007, p. 27)

According to ITIL (2007) organization uses assets such as resources and capabilities to create value in the form of goods and services. Resources are a direct input to production whereas capabilities contain the capacity of an organization

to co-ordinate, manage and apply resources in order to produce value to the customer. Capabilities cannot produce value alone but instead together with resources they form the basis for the value of the service (ITIL, 2007.).

Tuunanen, Bask and Merisalo-Rantanen (2012) did research on the modularity of services and developed a common typology for modular service design and divided the design into three parts: service module, service architecture and service experience. These three concepts build on each other and the purpose of their conceptual study was to create a foundation for development of modular service design methods. However, this study was conceptual by its nature and it still needs case studies for validation. Modularity in services has benefits since it can make complexity manageable, enable parallel work and improvement and it helps dealing with uncertainty (Tuunanen et al., 2012.). According to study by Rahikka, Ulkuniemi and Pekkarinen (2011) modular service processes gave value to the customer with better quality of service and increasing the customer's trust. Chaffey and Smith (2013) talked about scenario planning to identify and design the best ways to add relevant value to consumers.

Wollan, Jain and Heald (2013) discussed on today's sales and service lifecycle between customers and companies based on the experiences they had while working for Accenture. They mentioned that companies today have a multidirectional network to manage with customer leads coming from multiple intermediaries. One of the main focuses in their book was to recognize that customers no accept a "one-size-fits-all" -model, but rather want interaction that is more closely aligned with their preferences. IfM and IBM (2008) did a study on service innovation and added on saying that service innovation can impact customer-provider interactions and improve the experience of finding, obtaining, installing, maintaining, upgrading and disposing of products.

In the study IfM and IBM (2008) explained a service system being a growing proportion of the world economy and continued explaining that people having a service mindset caused to make more efficient, effective and sustainable service systems. Information systems researchers have long promoted the participation of users in IS development (Goodhue, 1995; Tuunanen et al., 2010). Majority of the previous studies has been focused on users in organizational settings, but there are some studies, which have distinctly taken a consumer focus (Tuunanen et al., 2010). Although researchers agree that user participation is beneficial, especially in the requirements phase, there is still some uncertainty about the best ways to involve users (Cavaye, 1995; Kujala, 2003).

According to Maglio and Spohrer (2008) a service system includes at least four different dimensions for exchanges: information sharing, work-sharing, risk-sharing and goods-sharing. For example information-sharing dominates in business consulting, work sharing dominates in outsourcing, risk sharing dominates in insurance and goods-sharing dominates in renting yet it seems that all four dimensions are present in almost all service systems (Maglio and Spohrer, 2008).

2.3 The service-dominant (S-D) logic

Marketing has inherited a transactional way of thinking from the past. Based on this traditional logic the exchange between companies and customers happens through “goods” and it focuses on tangible resources, embedded value and transactions (Vargo and Lusch, 2004, 2008). However, in the recent years there has been a shift towards a service-oriented economy and a new perspective on the relationship between companies and customers, which is based on intangible resources and the co-creation of value (Vargo & Lusch, 2004.). Service dominant logic represents a new way of thinking and was first introduced by Vargo and Lusch (2004) saying it is new model of exchange, where the goods dominant logic has been replaced with service-dominant logic. The traditional goods-orientated economy has changed into a service economy, which can be in all areas of business with new topics such as: service science, service marketing and service systems.

Grönroos (2006) in his article “Service logic revisited” argues that all firms are in fact service firms, but not all customers always buy everything in the form of services. Some customers still see goods as a resource instead as a value-creating process and therefore approaching such customers with the service-logic is not effective (Grönroos, 2006). However, one of the main principles in S-D logic is value in-use, which refers to value being created in the users’ processes during use of goods and services (Holbrook, Chestnut & Oliva, 1984; Vargo and Lusch, 2004; Grönroos, 2006, 2008). In this thinking the suppliers provide the customers with the necessary resources and foundation for their value-generating process, but they are not in fact co-creators of value (Grönroos, 2008). Service has been generally seen to be more of a perspective than an activity and it is said to be a perspective on value creation rather than a category of market offerings (Edvardsson et al., 2005; Grönroos, 2008).

The objective of adopting service logic in business is to enable value creation for both the customer and the supplier. Grönroos (2012) stated that the literature on the service-dominant logic highlights that the customer ultimately must experience service, yet current marketing terminology still implies the firm’s dominant position for value creation. Supplier processes being conceived as a support processes is the basis in the service-dominant logic (Vargo and Lusch, 2004, 2008; Payne et al., 2008) and by the Nordic School of Marketing (Wikström, 1996; Grönroos, 2006).

In the service-dominant logic the company cannot deliver value, but only offer value propositions (Vargo and Lusch, 2008) and as a consequence, firms need to change their production logic from inside-out (making, selling and servicing) to outside-in (listening, customizing and co-creation) in order to improve their performance (Payne et al., 2008). Gummesson (2007) wanted to expand the S-D logic in a conceptual paper with a network theory which suggests that service is not created just by supplier and the customer but instead a network of different stakeholders such as employees, the media, the society and intermediaries. This view is a multi-party approach to marketing which also presents a new term: many-to-many marketing.

According to Prahalad and Ramaswamy (2004) companies need to escape from the firm-centric view of the past and seek to co-create value with customers through and obsessive focus on personalized interactions between the consumer and the company yet in service-context it is difficult to understand when an exchange is taking place which makes it hard to focus in customer-centric value-in-use concept (Grönroos, 2006). Further they continued that this will require managers to escape their product-centered thinking and instead focus on the experiences that customers will seek to co-create (Prahalad & Ramaswamy, 2004.).

2.4 The concept of customer value

Value and value creation has been found to be a foundational aspect in marketing and business (Vargo & Lusch, 2004; Grönroos, 2011). However, the traditional concept of market and the process of value creation has been company-centric instead of customer-centric. (Prahalad & Ramaswamy, 2004). In the previous studies the interactions between companies and customers are not seen as a source for value creation (Wikström, 1996). Currently, growth and value creation have become dominant themes for managers and the interaction between the firm and the customer is becoming the central focus of value creation and value extraction (Prahalad & Ramaswamy, 2004). This goes well with the "customer is always a co-producer" - thinking that Vargo and Lusch introduced in 2004 and later changed this view into customers as co-creators of value (Vargo & Lusch, 2008).

Vargo and Lusch (2004) were the first ones to talk about service-centered model of exchange and they added that businesses that have customers participating in the service process also have the most success in creating intangible, competence value propositions. One method to measure service process is by the flow experience. In the flow state, people become absorbed in the activity and lose sense of time and consciousness (Csikszentmihalyi, 1991). The findings of the case studies conducted by Tuunanen et al. (2010) indicated that the study participants valued the experience of flow and the flow concept always played a role when designing an interactive technology for consumers. Usually perceived ease-of-use is identified to have a positive relationship with flow (Ching-Lung & His-Peng, 2003.). However, the recent studies based on the flow experience have not considered events that take place within a service or system (& Karahanna, 2000).

In the traditional marketing and management literature there is a common understanding that value is created in the users' processes as a value-in-use (Grönroos, 2006; Holbrook, 1994; Vargo & Lusch, 2004). Osterwalder and Pigneur (2010) wrote about the value propositions saying that the value propositions should seek to solve customer problems and satisfy customer needs. Informed, networked, empowered and active consumers are increasingly co-creating value with the firm (Prahalad & Ramaswamy, 2004). Value creation is used, however, in more than one phenomenon. On one hand, the customer is

always the co-creator of value (Vargo & Lusch, 2004) and on the other hand it is also used to mean the entire process of development, design, manufacturing and delivery as well as back-office and front-office activities and also including the customer's creation of value-in-use (Grönroos, 2011).

The meaning of value and the process of value creation are rapidly shifting from a product- and firm-centric view to personalized consumer experiences (Prahalad & Ramaswamy, 2004). Value exchange and extraction are the primary functions performed by the market, which is separated from the value creation process, as shown in FIGURE 2 (Prahalad & Ramaswamy, 2004). In the figure the firm-consumer interaction the focus of economic value extraction by the firm and the customer. Also the interaction works as a basis for the consumer experience (Prahalad & Ramaswamy, 2004). The flow of concept is also from the firm to the consumer, as the market is a place where market value is exchanged and the consumer has to be persuaded by the firm.

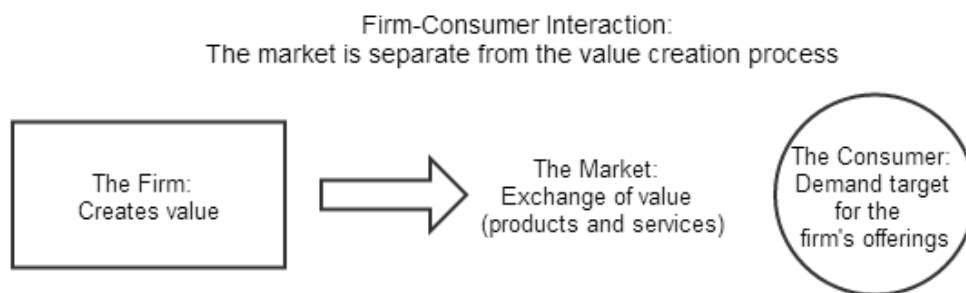


FIGURE 2 - The Traditional Concept of a Market (Prahalad & Ramaswamy, 2004, p.7)

In the literature on value creation and co-creation, value is often discussed on a philosophical level (Grönroos, 2011). In the most frequently used approach, value is a relationship between what one benefits and what one sacrifices (Sanchez-Fernandez & Iniesta-Bonilla, 2007). On a more general level, Grönroos (2008) defines value for customers meaning so that they feel being better off after having been assisted by the provision of resources or interactive processes. Storbacka and Lehtinen (2001) state that customers produce value for themselves independently yet suppliers may offer assistance in the process. However, during part of the value-creating process, the supplier may become a co-creator of value as well. This works mainly during interactions with users (Grönroos, 2008.). Finally, the overall value perception of a customer can only be seen when taking the monetary and non-monetary acquiring and servicing costs into account (Rahikka, Ulkuniemi & Pekkarinen, 2011).

2.5 The value co-creation approach

In the value co-creation perspective the market is separate from the value creation process and it has no role in value creation. The customer defines the value and the co-creation experience depends highly on particular individuals (Prahalad & Ramaswamy, 2004.). According to Payne, Storbacka and Frow (2008) the customer is involved in every stage of the service development and taking a proactive role in the creation of value. Payne et al. (2008) added that the customer value creating process could be seen as interactive, dynamic, and often unconscious process. Many companies encourage users to be a part in building content with their own information, which eventually leads to co-creation of value (Myungsin & Byungtae, 2005).

Prahalad and Ramaswamy (2004) added that informed, connected, empowered and active consumers are increasingly learning that they can extract value at the traditional point of exchange. Also, consumers are now subjecting the industry's value creation process to scrutiny, analysis and evaluation. Consumers now seek to exercise their influence in every part of the business system. Armed with new tools the consumers want to interact with firms and thereby "co-create" value (Prahalad & Ramaswamy, 2004.). Gummesson (2009) argues that the creation of mutual value between customers, suppliers and stakeholders will become core focus and eventually the value is jointly created between all the parties involved in a relationship.

Despite the growing relevance of value co-creation there are still questions that remain unexplored in the research studies such as the question of creating superior competitive advantage based on value co-creation orientation (Restuccia, 2009). However, the scholars that have handled B2B-context have been in the frontrow in the conceptualisation of generic actors involved in value-creation process (Vargo & Lusch, 2011). A vast majority of the previous research has been done based on constructed evidence (Prahalad & Ramaswamy, 2004; Prahalad & Krishnan, 2008) and it has been conceptual in nature (Vargo and Lusch, 2004; Etgar, 2008; Tuunanen et al., 2010).

Grönroos (2011) has argued that in literature the term value co-creation is used as an unspecified expression and in his opinion the actions and roles need to be defined more clearly. Furthermore, Grönroos (2011) argues that the role of the facilitator does not make the company automatically to be a co-creator of value yet it is only a part of process that eventually leads to value for the customer.

3 BACKGROUND TO THE VALUE CO-CREATION IN CONSUMER INFORMATION SYSTEMS FRAMEWORK

This chapter will present value co-creation model that was conducted by Tuunanen et al. (2010) as a conceptual framework for consumer information systems development. The chapter first explains the framework as a whole and then goes through the theories behind the frameworks system value propositions and system value drivers.

3.1 Value co-creation framework for consumer information systems

Tuunanen et al. (2010) formed a conceptual framework (see FIGURE 3) for value co-creation in the information systems development context based on three separate case studies. The framework illustrates how consumer value is co-created through system value propositions and customer value drivers. More specifically the proposed framework is about the design and development of digitalized services with the focus being on consumers instead of organizational users. The research by Tuunanen et al. (2010) indicated that consumers are motivated by both rational (utilitarian) and emotional-based (hedonic) evaluations of utility before their consumption decision. Consumers balance the utilitarian and hedonic value (Holbrook et al., 1984) and think of it as enjoyment versus the functionality of the product. Tuunanen et al. (2010) state that with this balancing of utilities the service experience also becomes an important piece of the process and consumers also start to become active participants in the production of goods and services they consume (Ostrom et al., 2010).

The framework is divided into two sections. The left side of the framework shows Consumer Information System (CIS) value proposition and the right side shows customer value drivers. Three elements related to system value propositions are summarized in FIGURE 3: construction of identities, social nature of

use and context of use. Concepts for these originate from the social actor theory (Lamb & King, 2003; Lamb, 2005), contextual use of information systems (Dey & Abowd, 2000; Goodhue, 1995), culture's effect on user behavior (Klein & Myers, 1999) and users' needs (Tuunanen et al., 2006).

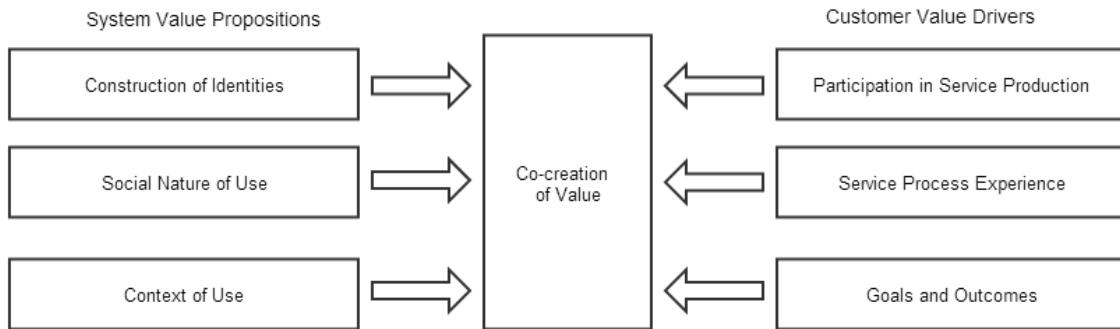


FIGURE 3 - Framework for Value Co-Creation in Consumer Information Systems (Tuunanen et al., 2010, p. 52)

3.2 Theories behind the system value propositions

In the IT system design research there has been various techniques to help the designers to understand users. According to Lamb and King (2003) the traditional “user” that is used in the information and communication technology (ICT) literature needs to be re-conceptualized into actor. This claim comes from the view that users are affected with “the social actor” and they are understood to be organizational entities that at the same time are in contact with socio-technical affiliations and environments of the organization, its members and industry. The social actors are not just users of ICT, but rather they as co-designers of these systems while using them. The social actor dimensions include affiliations (organizational relationships), environments (regulated associations), interactions (information, resources and media) and identities (profiles of members) (Lamb and Kling, 2003; Lamb, 2005.).

The social actor theory helps to explain the social nature of system use and takes account the roles that people fulfill while adopting, adapting and using information systems. Lamb and Kling (2003) also stated that these actors could have their own identity constructed while being closely attached to the artifacts they are using. An example of this type of behavior is the Japanese teenagers that accessorize their mobile phones with custom accessories such as gizmos and costume jewelry, making mobile phones part of their identity.

Another method to design a system is to think about the context of use since it is very likely to affect the user experience and the user requirements (Dey & Abowd, 2000; Goodhue, 1995). Klein and Myers (1999) introduced the concept of contextualization to information systems as a part of critical principles when designing a system while von Hippel (2005) wrote about context-of-use information (generated by users) being a part of product development.

Zimmermann, Specht and Lorenz (2004) introduced a base framework for designing context-aware applications and argued that personalization (user's interaction history, motion style and interests) and context management are the key elements when in IT system design. Context management is said to be a combination of personalization and contextualization to use with omnipresent computing. However, even a simple set of rules when defining design to end-users can end up as a very complex output (Zimmermann et al., 2004; Henriksen et al., 2002).

Personalization allows system developers to receive information about the needs, goals, knowledge, interests of the users and contextualization complements the personalization so that context of use can be taken account (Zimmermann et al., 2004), however it does not stand for a single method or technique (Karat, Blom & Karat, 2004). Karat et al. (2004) did a study on personalization using it in as a user experience in e-commerce (IBM) and found out that a website with interactive and personal service can be regarded as more trustworthy than one with less interaction. They viewed personalization and the use of personal information with the ultimate goal of providing more extra value to both the customer and the provider. Online sites have accommodated personalization features and aim for value co-creation since user-provided content makes it perceived as more useful and harder to discard (Myungsin & Byungtae, 2005).

Karat et al. added that even though there is a great amount of development in the area of personalization technologies it is now clear how and when these techniques give real value to the customers (Karat et al., 2004). According to Kalyanaraman and Sundar (2006) one way to affect consumer attitudes and behavior is to use personalized content in web portals. Chaffey and Smith (2013) also stated that personalization strengthens the relationship between a company and a customer, yet when larger the customer base gets the more complex the personalization becomes. Recently more and more companies have been coming to realize that customization is vitally important for success in business. The Internet has revolutionized the concept of customization by allowing users to receive information based on their own interests and preferences.

While the idea of offering individualized service isn't new and most of it has been positive, it still has some negative aspects in it such as user privacy. In the privacy and trust aspect users actually think that the IS interface is being intrusive and distressing (Kalyanamaran & Sundar, 2006.). Overall, personalization helps to screen out unwanted information, improves accuracy of searches and speeds up the completion of transactions and therefore it is seen as an important factor in IS design especially in B2B-context (Chakraborty, Lala & Warren, 2002).

According to Chakraborty et al. (2002) personalization simply meant addressing visitors as individuals and remembering when they return to the site, yet it had significant impact in web site effectiveness. Customization is a psychologically significant variable in IS design and personalized context can translate into positive attitudes and actions towards a system (Kalyanamaran & Sundar, 2006.). Osterwalder and Pigneur (2010) mentioned that customization can create value by tailoring products and services to specific needs of an indi-

vidual customer or to a larger customer segment. High level of personalized services characterizes value-driven business models. Osterwalder and Pigneur added that in the recent years, the concepts of mass customization has gained importance and has allowed customer co-creation while still taking advantage of scalability in products and services. Some examples of co-creation can be videos created for public consumption and reviews given to assist fellow other consumers (Osterwalder & Pigneur, 2010).

Dey and Abowd (2000) divided contexts into categories of location, identity, activity and time. They added that in context-aware computing the user's context is very dynamic and the user needs to be given implicitly sensed context that humans use when talking with other humans. Other trend in IS research is saying that cultural context is likely to influence user requirements (Tuunanen, Peffers & Gengler, 2006; Klein & Myers, 1999). All in all, the need for context-aware, flexible information systems and applications is growing since the ratio of applications to users is radically increasing and concurrently the attention of users is in a decline (Henricksen et al., 2002).

Another perspective in the context of use is to have automated marketing to look at the behavior of a visitor and set rules to generate automated response. The rules become a set of processes that allow highly relevant information to the user to help them in the user experience (Chaffey & Smith, 2013.). This is something that Karat et al. (2004) also looked in their research and noticed that different features in a system does have different values depending on the user and the business context-of-use. However, personalizing interaction should not be thought of as optimized through the use of a single feature (Karat et al., 2004).

3.3 Theories behind the customer value drivers

Three elements are also related to customer value drivers, which are oriented towards the development process of Consumer Information System (CIS). Theoretical basis for these factors origin from the execution of customer involvement (Barki & Hartwick, 1994; Cavaye, 1995; Kujala, 2003; von Hippel, 2005), consumption patterns (Westbrook & Oliver, 1991), the psychology of optimal experience (Csikszentmihalyi, 1990; Agarwal & Karahanna, 2000) and the hedonic utility (Holbrook et al., 1984; Kahneman, Diener & Schwarz, 2003). Barki and Hartwick (1994) defined the term user participation to be a set of operations and activities performed by users during IS development. Cavaye (1995) added that participation isn't however a clear-cut concept but instead in practice it can occur at many levels.

The factors related to the user when talking about user participation are willingness to participate, ability to participate and the user characteristics/attitudes. The previous studies have shown that there isn't direct relationship between user involvement and information system success (Barki and Hartwick, 1994; Cavaye, 1995.). However, later studies have accepted user involvement as a proven principle in the development of usable systems (Kujala,

2003; von Hippel, 2005). Kujala (2003) studied the benefits and challenges in user involvement and stated that it clearly has positive effects on both system success and user satisfaction yet it can be a challenging task for designers. Osterwalder and Pigneur (2010) argued that companies invest heavily in market research, but don't pay enough attention to the customer perspective when designing products and services. They added that building a successful innovation requires an understanding of customers including environment, daily routines, concerns and endeavors (Osterwalder & Pigneur, 2010).

The term customer involvement is having increasing popularity with academic marketing texts although it has been merely seen as an information-process from customers to the firm (Lundkvist & Yakhlef, 2004). Companies have been rushing into the customer involvement bandwagon in hopes of giving them better cost/time product development curve and reduced uncertainty (Lundkvist & Yakhlef, 2004). Lundkvist and Yakhlef (2004) proposed a more conversational approach that requires a more active participation from the customers, which leads to co-creation of ideas and action. They added that a conversation works best when it can give natural knowledge, new insights and unthought-of ideas. In a book on electronic marketing, Chaffey and Smith (2013) suggest that collaborative co-creation is a natural instinct and humans actually perform far less selfishly than previously assumed.

Even if customers are willing to pay for customized products exactly for their need, it is important to understand why customers want to innovate for themselves rather than hire a custom manufacturer to develop the product faster and cheaper. One reason for this could be the enjoyment of the innovation process and the learning that it brings to them. Another motivator is the enjoyment of the problem-solving process that is included in designing the product. In an empirical finding it was discovered that users often freely reveal their innovations to other users (von Hippel, 2005.). Rewarding the customers is one way of adding value to the relationship and they're multiple innovative approaches to reward and encourage online customer loyalty (Chaffey & Smith, 2013).

Westbrook and Oliver (1991) did research the causal relationship between product-consumption experiences and consumer satisfaction. The results of their studies indicated that the customer happiness and delight patterns were linked to high levels of satisfaction, although different contexts such as product purchasing and product maintenance may give different results (Westbrook & Oliver, 1991.). Hedonic consumption experiences also play a large part in buying decisions (Holbrook et al., 1984).

Holbrook et al. (1984) studied "play" as a consumption experience and investigated the phenomena of playful consumption. The results of the study suggested that consumer behavior should be more focused on consumption, consuming and using instead of purchase, buying and choosing. Holbrook et al. (1984) stated in his games study that consumers engage emotionally and imaginatively when making purchase decisions. He introduced a term "playful consumption" which indicates that hedonic utilities show a large part in the value consumption process.

Previous research has found emotions to be an important factor of consumer behavior, but there it is still unclear how to measure emotions such as joy, fear and guilt when linked to product ownership and brand loyalty (Richins, 1997). Kahneman et al. (2003) admitted that the utility concept is a key concept in economics, but argued that the link between hedonic experience and the control of action is less influential than what previous research has indicated. The study by Kahneman et al. (2003) stated that we couldn't predict individual's choice of behavior by knowing his utility values and we could only observe the choice process. Another view on user consumption process is the flow concept (Csikszentmihalyi, 1990), which describes the optimal experience and a complete absorption in what one does.

Flow is focused motivation that associates with the user having clear goals and outcomes in task at hand (Csikszentmihalyi, 1990; Agarwal & Karahanna, 2000). Agarwal and Karahanna (2000) studied the cognitive absorption and the concept of flow in the context of World Wide Web and pointed out the importance of perceived usefulness and perceived ease of use when using information systems. Chaffey and Smith (2013) emphasized that in today's information cluttered and time-compressed world consumers are busy and don't like wasting time. These money-rich, time-poor customers want to find information quickly and make transactions easily.

Based on the case studies by Tuunanen et al. (2010) it seems that the flow concept has a significant role in information system design and there is evidence that the test participants valued the experience of flow in the information system that was used as a test environment. The findings of the study by Tuunanen et al. (2010) indicate that flow should be a part of development of the interactive service experience since it gives pleasure and enjoyment in use. Other implications from the Agarwal & Karahanna study include the importance of strictly utilitarian perspective in IS, visually rich material is more easily absorbed and that the nature of technology should be noted since the rise of e-commerce has elevated the importance of user reactions to web site design (Agarwal & Karahanna, 2000).

Chaffey and Smith (2013) introduced the term online value propositions (OVP) and stated that the proposition should be able to offer some unique advantages such as immediacy, interactivity, depth and relevance of content, convenience and more resources. One way to offer relevant content is to use customized portals, which has been empirically seen to raise perceived relevance, involvement, interactivity and novelty in consumers (Kalyanaraman & Sundar, 2006). The OVP should reinforce the core brand values and company strengths. It is important to clearly summarize the complete list of features, benefits and prices with offering the full experience of selecting, buying and using the product of service. Chaffey and Smith added that the buying process in an online system must be seamless and efficient, since a well-managed process integrates business processes and systems that, in turn shaves costs from the supplier (Chaffey & Smith, 2013.).

3.4 Value co-creation in a business-to-business (B2B) context

Business-to-business (B2B) is a business model, where the products or services are offered directly to another business, but the definitions for it vary (Vargo & Lusch, 2011) and the differences between B2B and business to consumers (B2C) are sometimes hard to separate. Vargo and Lusch (2011) introduced an alternative view on B2B logic and argued that “actor” would be more defining, because it fully captures the activities of those who exchange. This view works especially in service-for-service process that is used in service science framework (Vargo & Lusch, 2011). They added that in a service ecosystem social and economic actors co-produce service offerings, engage in mutual service provision (service-for-service) and therefore, co-create value which is unique to their situation and context (Vargo and Lusch, 2011). However, Wollan et al. (2013) stated that an area where B2B companies usually fall short is taking a one-size-fits-all approach and not recognizing the diverse needs of the customer.

According to the social actor theory by Lamb (2006), business users have more interests and motives in their use than regular users. They have interaction with other actors, but instead of representing only themselves, they have a collective social actor – their company to represent. An organizational user has identity that is constructed by the company the user represents and the occupation the user has. Building the network identity differs in a B2B environment and it is a combination of actors own interests and the company’s interests (Lamb, 2006.).

Gummesson and Polese (2009) discussed about B2B being a perspective of a service system instead of being a whole independent marketing category. They used the term many-to-many marketing to describe the importance of networks in the B2B field which is something that Wollan et al. (2013) also agreed on and continue that B2B companies often depend on indirect channel partners which all contribute to the company effectiveness by giving a high-quality services. The term recognizes that both suppliers and customers operate in complex and scale-free network contexts and even though it has complexity it can still be used in a simple, everyday level (Gummesson & Polese, 2009.).

Lages, Lancaster and Lages (2008) also argued that in a B2B-marketplace the relationship performance is a high-order concept with several distinct and related dimensions. A comparison between B2B marketing textbooks has showed that several approaches in them include a network and value approach (Backhaus et al., 2007). The textbooks that take the stance in networks and value are concentrated in markets instead of single companies in a systematic context (Gummesson & Polese, 2009) with the exception of the study done by Tuunanen et al. (2010) where they reviewed their own value co-creation framework with three qualitative case studies.

Grönroos (2011) stated that in business-to-business contexts the support of a supplier will always have some effect on the economic result of the customer’s business and the value for customers can be measured in monetary terms. In addition, value also has a perceptual dimension such as trust, commitment and attraction (Grönroos, 2011.). B2B marketing and organizational theory

shows us that the suppliers as organizations are viewed as networks of internal and external contacts (Gummesson & Polese, 2009). The profitability of a business is dependent on how well the firm's various practices function not only in terms of operational efficiency, but also in business effectiveness. It's not easy to thrive in today's B2B selling environment, since there is more uncertainty, more business partners, more ways of customer interaction and more variables to cause more complexity (Wollan et al., 2013). Providing a complex B2B service also means creating a multidisciplinary attempt that includes people, technology, shared information and value propositions that is matched to each opportunity (Maglio & Spohrer, 2007).

Grönroos divided the B2B customer value drivers into: effects on the customer's revenue and business growth, effects on customer's cost level (higher margins and lower operative costs) and effects on perceptions (such as trust, commitment, comfort and attraction towards supplier). In principle, the effects on customer's revenue and customer's cost level can be measured in monetary terms, but the effects on perceptions can only be measured as cognitive effects (Grönroos, 2011.). In professional services the value is intertwined with both the service process and the outcome of the service and understanding the customer-perceived value is therefore a complex matter (Rahikka et al., 2011). Osterwalder and Pigneur (2010) argue that to understand B2B customers, companies must have exact customer profiling knowledge to create value. Wollan et al. (2013) argued that a holistic solution focuses on a mutual win-win economic incentive where both the customer and the supplier get benefit and engagement.

Thomke and von Hippel (2004) added that going into customer innovation can generate value, but is not a straightforward process. Now when customers doing more design themselves companies need to provide best possible manufacturing, which means that the location where the value is both created and captured has changed and companies need to reconfigure their business models. This customers-as-innovators approach has mainly emerged in B2B field, where companies have been able to predict where value will migrate and how to capture it accordingly (Thomke & von Hippel, 2004; von Hippel, 2005.). B2B companies are often more developed than B2C companies at helping their customers since they focus scenario planning and identifying how online services can help their customer (Chaffey & Smith, 2013).

Lapierre (1997) did early research on value in B2B professional services context and conceptualized two levels of value as the value of exchange and value in use. According to Lapierre the value exchange refers to the professional service practices that support organizational customers during the service process. Value in use refers to outcomes that organizational customer perceives through financial, social, operational and strategic aspects (Lapierre, 1997.). More and more B2B companies are targeting the small- and medium-size business segment, because it has noticeable purchase power. However, a traditional approach is not efficient enough in today's complex market environment (Wollan et al., 2013.) yet some repetitive and routine buying is usually involved in B2B exchange (Chaffey & Smith, 2013).

Wollan et al. (2013) added that the "one-size-fits-all" model that is often used in B2B-context no longer is effective and by better matching activities to

preferences the overall customer satisfaction increases. When a B2B company tailors its offering to the market and provides unique value, the results can be impressive. The B2B market represents a vast, expanding and profitable opportunity for companies, but due to its fragmented and competitive nature it places multiple challenges to the cautious. Numerous companies have failed in the B2B market, because they have relied too much on business models that optimized for marketing and selling, instead of focusing on giving the customer true value (Wollan et al. 2013.).

In an empirical study on B2B web site correlatives in regard of effectiveness, Chakraborty et al. (2002) found an interesting implication that utilitarian aspects such as entertainment are in fact more important to B2B customers than B2C customers. They downplayed the role of security and accessibility even though these are often thought to be important and stated that informativeness is the key factor in B2B web site effectiveness. Cao, Zhang and Seydel (2005) argued that the most important e-commerce quality is not the attractiveness, but the quality of the system and the service. Factors in the quality consist of information accuracy, responsiveness and search facility. They also added that the information provided on a website has to be accurate, informative, updated and relevant to the customers' needs. Wollan et al. (2013) added that an efficient online experience provides the means to engage B2B customers and testing the platform plays a large part in it.

Although the Internet has changed the way the business is done in B2B e-commerce, there is room for improvement. Many e-marketplaces have failed, because they haven't been able to attract enough buyers and sellers that their business model required (Murtaza, Gupta and Carroll, 2004.). Murtaza et al. added that some of the main concerns and problems when dealing with a B2B systems are security and integration issues. An e-commerce must have a system with a strong, well-implemented and well-tested security policy in place. However, if the authentication procedure is too complex and time-consuming it may negatively effect on user confidence and the usability of the site. Another big challenge facing companies that want to have a B2B exchange is the integration of the systems, since most companies have automated their back-end processes their own enterprise resource planning (ERP) and electronic data interchange (EDI) systems (Murtaza et al., 2004.).

4 DIGITAL SERVICES

This chapter explains how services have evolved as a concept and how the features and character have changed with the development of technology and digitalization. This chapter also presents the concept of online portals and how digital services are operating in the business convention industry.

4.1 What is a digital service?

Williams, Chatterjee and Rossi (2008) defined digital service into being: "an activity or benefit that one party can give to another, that is, provided through a digital transaction". Chaffey and Smith (2013) defined digital value as offers and services that can only be accessed or delivered online. The world is connecting fast and there are more on more ways to stay online with interactive digital TV, mobile phones and mobile applications, planes, trains and automobiles all having access to the Internet (Chaffey & Smith, 2012). Williams et al. (2008) added that the digital service provider is the participant who offers the service or activity and the participant who receives this service is called digital service user. It is important to notice, however, that both parties can be considered to be the digital service providers and also the digital service users (Williams et al., 2008.).

One explanation to the rise of the service sector is the development of information and communications technology (ICT) tools that enable different uses and networking. Services were considered as the sinkhole of the economy, but recently there has been an increase in jobs labeled as services and the focus on digital technologies are supporting this transformation. Traditional business models can be made more productive with ICT tools and there has even been entirely new business models created that offer services with previously impossible prices. Services have been added as value-added activities to avoid competition based solely on price market offerings are similar between competitors. At the same time the automation of basic activities into digital tasks will require professionals to perform more advanced and analytical thinking and often re-

quire entirely different set of skills than providing the service solely (Zysman et al., 2010.).

Williams et al. (2008) created taxonomy for digital services where they identified four essential design dimensions that separate the services from the other: service delivery, service maturity, malleability (provider and user) and pricing/funding. Service delivery describes how the service is provided and what requirements (ie. software or hardware) it might have for the user of the service. Service maturity is based on the four phases of technological adoption (enthusiast, professional/business, consumer, embedded systems) and they indicate how much there is interaction between service providers and service users.

Malleability describes the docility of the service and how well it can custom the quickly changing market needs and requirements. Digital services have an advantage in malleability since they can be dynamically and incrementally updated and improved. The value proposition is an essential part of the digitalized services and therefore it should be based on the user experiences. The revenue logic usually varies from both sales revenues as well as other sources. High starting cost and nearly 0 marginal cost characterizes the information-intensive products and services online (Williams et al., 2008.).

Williams et al. divided the malleability functionality into service provider and service user dimensions. Service provider dimension reflects on how easily the provider can adjust and modify the service. A good design should operate in a high-quality level, since if the digital services are not well designed, there can be significant barriers in working with the digital service. For service users, malleability stands for the level of impact changes in the digital service has on the service user and how well users can accommodate to new customized offerings (Williams et al., 2008.).

According to Williams et al. the digital services can also be divided with three different objectives: business, technological and interaction. The business objective is not just about money, but also about building a successful business with brand establishment, customer loyalty and offering superb customer service. The technological objective is more focused on the technological solutions, functionality and performance, but without a sense of business objective it can be costly. The interaction objective focuses on human-computer interaction (HCI) and the user experience. It focuses on how easy the digital service is to learn and how the service provider meets the individual needs of their customers (Williams et al., 2008.).

Chaffey and Ellis-Chadwick (2012) studied the types of online presence for a company and identified these types based on components and offerings that are part of a site. These types are:

1. Transactional e-commerce site
2. Services-oriented relationship building or lead-generation web site
3. Brand-building site
4. Portal or media site
5. Social networking or community site

(Chaffey and Ellis-Chadwick, 2012).

According to Chaffey and Ellis-Chadwick (2012) the transactional e-commerce site stands for manufacturers, e-retailers, travel or financial services and the main business comes from the sale of these products. Service-oriented relationship building and lead-generating web sites aim to stimulate the purchase, however, Chaffey and Ellis-Chadwick argue that these products are not typically available for purchase online. The main business objective in service-orientated web sites is to create offline sales and add value for existing customers by providing them with relevant information. A brand-building site is to provide an experience to the customers to support the brand image. Products are not typically available, yet the main focus is to support the brand value by using content marketing through social media.

A portal or media site is an intermediary that provides a gateway to information and content. Revenue generation comes from various sources including advertising, commission-based sales (affiliate marketing) and selling access to content through subscription or pay-per view. The last main type of online presence is a social network or community site that enables community interactions between consumers (customer-to-customer, C2C model). Typical interactions include commenting, rating, tagging and message exchanging (Chaffey & Ellis-Chadwick, 2012.).

4.1.1 Online portals

Myungsin and Byungtae (2005) defined online portals as information directories and index services that have later developed a business model with online advertisement. They emphasize the meaning of user engagement and portal service providers have striven to make their sites as surfing destinations instead of gateways. They recognize four key factors for developing a site that keeps users motivated and makes them stay for a long period of time: relevant information for users' needs, user engagement, convenient access to information and value co-creation with customers.

Bauer, Hammerschmidt and Falk (2004) suggest that portals are a so-called hybrid business model that doesn't exclusively follow any of the four net business models of content, context, communication and commerce, but instead integrate these 4 C's of the Internet into a complete business model. Portals can be seen as extensive web sites that can be either information-only sites or transaction-only sites, but generally being characterized as problem solving extension to an existing service concept. Considering the fact that portals are all-in-one solution the user no longer has to spend time or stress about searching for the information through several specialized sites. If the customer doesn't have to leave the portal site it provides a high convenience benefit for the user (Bauer, Hammerschmidt & Falk, 2004.).

Myungsin and Byungtae suggest that providing a well-designed platform and building a community with spontaneous and interactive information exchange between users can result into portal's success. Having loyal customers is a competitive advantage, since competition between online portals is just one

click away. However, while managers of online businesses recognize the need for succeeding in aforementioned factors, it is still unclear how to create services that can drive traffic to sites and encourage users to stay for a longer period of time (Myungsin & Byungtae, 2005.). Portals can be described as innovative self-service technologies that offer a single point of access to services while offering almost unlimited content for the user and also a chance for one-stop shopping (Bauer et al., 2004).

Information search and retrieval service by maximizing the scale and extent of the data is being concerned a way to achieve stickiness to a web site. Yet, the relevance of the information is user-specific and task-specific, but most portals are limited to representing static information only. Transforming online portals into dynamic data sources from gateways is a question that researchers and managers need to address. Creating an effective online portal that stands as an interesting information search and retrieval isn't simple, but not an impossible mission either (Myungsin & Byungtae, 2005.).

A major feature that transforms a traditional web site into a portal can be seen as the ability to personalize the 4 C's (content, context, communication and commerce) of Internet individually according to the users' needs and preferences. Personalization enables the user to create a personal virtual space and increases the user's perceived control of the portals elements as well as the freedom of choice. The ability to personalize service is not being utilized accordingly by online portal providers and therefore represents a way to gain a competitive advantage (Bauer et al., 2004.).

Lages, Lancastre and Lages (2008) stated that even though buyers in e-marketplaces usually rely on order volume optimization and pricing strategies, there is still an opportunity for supplier to add value through relationship strategies in order to develop up selling, upgrading and cross selling of products and services. Another portal characteristic is the inclusion of services from third parties, which means having strategic alliances in order to increase transaction efficiency and benefits for customers through a wider range of offerings (Bauer et al., 2004). Lages et al. (2008) added that this type of strategy usually had other non-critical products to be included in the strategy, because in the relationship process there are various stages in which different dimensions contribute in different ways during the process. Portal sites can capture distinct customer segments by providing a wide selection of customized services that add value to the core products and therefore portals are able to add advantages that can positively affect satisfaction and loyalty of customers (Bauer et al., 2004).

4.2 Digital services in the business event industry

Platforms that offer digitalized services are rising to be an essential area of research and studies (Williams et al., 2008). As Williams et al. state one of the levels of technological adoption is the use of professional or business systems, where the system designers design support systems and tools to eliminate the interaction between designers and users. Often there are problems in the cus-

customer delivery system that can permit occasional interaction between system designers and users. The service scalability comes from the unity and the little custom training required using these systems (Williams et al., 2008.).

Buchanan and Mcmenemy (2012) studied digital libraries and stated that they are in pursuit of personalized interactive user experiences and evolving from static content-centric to more dynamic person-centric systems. They added that these digital libraries no longer hold barriers, but instead serve as a centre of intellectual activity. This creates joint initiatives and a collaboration that helps different organizations, institutions, industries and commerce, since in an era of limitless technological innovation and increasing user expectations; digital content is in high-demand. The integrated nature of using a single portal can save time and effort and display of the information can add value with in terms of understandability, better comparability and all-around better usability. Another commonly cited benefit is related to the visibility and awareness of services which can even lead to reduced total costs and improved ROI (returns on investment) with shared infrastructure (Buchanan & McMenemy, 2012.).

The popularity of businesses such as eBay suggests that the auction is increasingly serving as the basis for pricing goods and services online (Pralhad & Ramaswamy, 2004.). Building an online business event catalogue as a market forum can be used as a platform for value co-creation experiences. Co-creation of value fundamentally challenges the traditional distinction between supply and demand. According to Prahalad and Ramaswamy (2004) we must view the market as a space for potential co-creation experiences. They added that market resembles forum for co-creation experiences.

In a study conducted by Murtaza, Gupta and Carroll (2004) the e-marketplaces were still a relatively new trend that affected the traditional buyer-supplier relationships. They defined e-marketplace to be a trading hub or exchange that connects buyers and suppliers by making all information available to all participants online while Lancastre and Lages (2006) defined an electronic market as being networked information systems that serve as an enabling infrastructure to exchange information, transact and perform other actions before, during and after transaction. Buyers in the e-market receive relevant, real-time product information and suppliers gain better access to market information for product development (Lancastre & Lages, 2006).

According to Murtaza et al. the Internet has changed the way that business is done in multiple ways. An e-market opens services and products to a larger number of customers when compared to traditional businesses. The e-market also offers better communication tools, maximizes input in design and reduces inventory costs at every level of supply chain (Murtaza et al., 2004.). Murtaza et al. also added that from a buyers perspective there is a larger selection of products available than before and that it easier to find the best value at the lowest price possible. The e-market is an efficient, centralized portal that serves as a hub to connect buyers and suppliers. It can also work as a catalog hosting management platform as well as transaction services such as auctions, logistics and payments. However, one of the biggest challenges in e-marketplaces is integration the ability to link the trade information directly with

the existing internal business applications used by buyers and sellers (Murtaza et al., 2004.).

Chaffey and Smith (2013) stated that when companies think about their products being presented online, they tend to only think about selling direct from their own web site. However, there are other successful models for online representation such as selling products through a neutral marketplace (Chaffey & Smith, 2013.). Chaffey and Smith added that reminded that customers don't only go online to save time and money, but instead to spend time, to socialize and simply for entertainment. They added that a portal or a media site is one of the main types of online presence and online publishers have multiple options to generate revenue such as advertising, commission-based sales (affiliate marketing) and selling access to content through subscription or pay-per-view (Chaffey & Smith, 2013.).

Wu and Sun (2011) conducted a study on the factors that influence the development of convention and exhibition industry cluster (CEIC) from the perspective of system dynamics. The CEIC is an open system that exchanges substance, material, technology and information continuously between relevant parties. One of the major features in CEIC is a strong cross-industrial connection and the CEIC model recognizes 7 different correlating factors in the industry: basic industry, industry policy, city environment, venue, market and products, logistics and facilitators (Wu & Sun, 2011.).

Severt and Palakurthi (2008) studied the main drivers to customer equity on business event industry. They used a model suggested by Rust et al. (2005) that customer equity is formed from three factors: value equity, brand equity and relationship equity. Each equity-factor has sub-drivers such as location, quality and price (value equity), reputation and awareness (brand equity) and personnel, responsiveness and special treatment (relationship equity). These factors played the most vital role to the success of the meeting. They added, however, that in the business convention industry each event is different and that what may work in one event, might not work in another (Severt & Palakurthi, 2008.).

5 RESEARCH METHODOLOGY

This chapter will provide a plan that specifies the research methods and techniques used for generating and analyzing needed information for the thesis. The chapter will explain the interpretive clustering analysis process that was done to further examine the similarities, differences and dependencies on the data. The chapter also presents the stimuli results and demographic information of the interviewees. The chapter will also provide insight on how the data was collected and why the results should be valid by justifying the choice of research philosophy and methods that have been used for data collection.

5.1 Research approach

This qualitative research is conducted in an interpretive paradigm, which focuses on the complexity of human sense making in an emerging situation. Interpretive research such as this assumes that reality can only be understood from social constructs such as language, consciousness, shared meanings and documents. Interpretive research can also provide deep insights into IS management and development issues (Klein & Myers, 1999.). The objective of this thesis is to discover the wants and needs of IS platform end-users and use this desires to develop new ideas to enhance end-user experiences.

The empirical part of the research will be done as a case study. Case study is appropriate for this research, because serves for both causes: the main research objective and the research approach. Case research is defined to be an empirical inquiry that studies current phenomenon within real-life connections (Yin, 2005). Using case research also gives an opportunity to study the end-user experiences in a specific B2B-context and get better understanding to the driving features that business users may have.

Walsham published a paper in 1995 that addressed the nature of interpretive IS case studies and argued that interpretive methods start from the position that our knowledge of reality is a social construction that is influenced by human actions. He added that there are several types of generalizations that can

be made from interpretive case studies them being the generating of concepts, development of theory, drawing of case specific implications and contribution of rich, valuable insights (Walsham, 1995). This thesis focuses on latter and tries to find rich insight and better understanding of specifically B2B-user experience in business seminars and conferences web sites.

5.2 Research case industry

The selected case for this research study is the business event industry and the study will conduct how the business event organizers and attendees co-create value while using an e-commerce service system. Business events are stands for business seminars, conferences, trainings and other events where the focus is on the development of professional skills. Among the largest conferences held throughout the world are the associated events, which have several non-profit organizations that share a common profession, trade, or interest in a specific cause (Davidson & Rogers, 2012).

Business events as a product can be composed with both tangible and intangible elements. The tangible elements stand for the event itself with taking into account of other suppliers of services such as local restaurants, shops, tourist attractions, transport operators and accommodation providers. As for intangible elements, usually the image and the atmosphere is noted to be crucial factors as well as reaching to the event objectives that can include learning, networking or other business objectives (Davidson & Rogers, 2012.).

To address the research questions, single or multiple cases can be used (Yin, 2003) and in this study the case will be handling a whole industry with individual participants from both sides from the industry: participants (customers) and organizers (suppliers) with the focus being on the latter. The focus is on business event organizers, because they usually have expertise and experience on both sides of the industry: both being an organizer and attending to other events as a participant. The case participants in the research will be looked at as individual end-users to represent a wider perspective. This meets our research objectives, because participants and organizers in the business event industry differ as end-users and this can give new insight to the value co-creation framework by Tuunanen et al. (2010).

The business event industry is known to be largely a B2B market where companies invest on the training and development of their personnel. However, the event managers are now required to identify and serve a wide range of stakeholders to balance out their needs and objectives (Davidson & Rogers, 2012). The word 'market' in this instance is open to some different interpretations, but one definition for it is to include the intermediaries to the traditional thinking of buyers and suppliers (Davidson & Rogers, 2012). The case industry is also suitable for the research question, which is set as finding out the habits of B2B service system users and how they might differ on the use habits of B2C users. This research later refers to the case industry as business event industry instead of the term business convention industry. Below in FIGURE 4 there is a

picture of a Finnish online ticket selling service www.lippu.fi, which is a marketplace for recreational events such as music concerts, theater performances and sports events. While this online portal operates in different field of business, it can still be also be used as a good indicator of the service possibilities for the business event industry.

The screenshot displays the homepage of the Finnish online ticket marketplace [lippu.fi](http://www.lippu.fi). The header includes the logo, navigation links for 'Shopping Cart 0', 'Personal details', and 'Login', and a language selector set to 'English'. A banner below the header states 'Over 18,000 events annually, of which 14 events are taking place today.' The main navigation area features 'All Event Categories' and 'All Cities' dropdown menus, a search bar for artists and events, and an 'Advanced Search' link. The central content area is divided into three main sections: a large event banner for 'TALLINN STAR WEEKEND' featuring 'THE OFFSPRING', '2CELLOS', 'LORDI', and 'ANDREA BOCELLI' (with 'CHARISMA (H) / PEEL CARPET SHOW' also mentioned), scheduled for 27-28.6; a concert listing for the 'Royal Philharmonic Concert Orchestra', 'Alexandrov Ensemble', and 'PUNA-ARMEIJAN KUORO' with dates for Helsinki, Lahti, and Turku; and a 'lippupiste uutiset' (news) sidebar with recent updates. Below these is a 'Top Events' section with a grid of featured shows: 'Sami Hedberg Show (Kevät 2014)', 'John McLaughlin & Band' (18.11.), 'Jarkko Tamminen: Stars Show' (with 'Pseudly presents STARS Show' branding), and 'Ilosfian oppitunti - UJT Arenassa 2014'. Each event listing includes a 'Liput' (tickets) button and the starting price. To the right of the 'Top Events' section is a 'lounge.' advertisement for 'Show & Dinner- ja VIP-paketit' and a banner for 'ANNA LAHJAKSI'.

FIGURE 4 - Online marketplace for promotion of recreational events

As seen from the FIGURE 4 above, the frontpage of the marketplace has a search functionality that uses different event categories, area or city where the events are being held and by the artists or events name. The marketplace also has a possibility for registration to simplify the ticket purchase process and a newsfeed to give notifications of relevant bulletins. Also in the front page there are featured events that have been highlighted with advertising banners and by ranking of the top events. This particular marketplace has been successful in seizing the Finnish market with having over 18 000 events annually with multiple events taking place each day.

5.3 Data collection methods and techniques

As suggested by Yin (2003), evidence for case studies may come from sources that include documents, records, interviews, direct observations, participant observation and physical evidence. In this research, qualitative interviews and quantitative observations were used. This thesis also looks into Critical success chains (CSC) as a method of data gathering, analysis and ideation for Information Systems. Introduced by Peffers et al. (2003) it is stated that CSC has the potential to positively affect the current IS projects available to a firm, because the method can result in wider information with more participants and richer information for planning.

The background of the CSC comes from previously widely understood concept called Critical success factors (CSF), which is a simple concept that identifies the most important and critical performance requirements on which the firm depends. CSC was built on the foundation of CSF by applying the personal construct theory (PCT) to it, which is well distinguished among business professionals. The new methodology (CSC) models the relationships among system attributes, performance consequences and firm performance (Peffers et al., 2003.). Personal construct theory (PCT) as seen below in FIGURE 4 was developed by George Kelly, a practicing school psychologist who modeled the theory to understand how his patients and teachers understand and see the world differently. He noticed that they saw the relationships (attributes) between the states of the universe differently, which had impact (consequences) on their individual values. These relationships (personal constructs) result from our personal observations and understanding of events, which ultimately effect on our values and personal objectives.

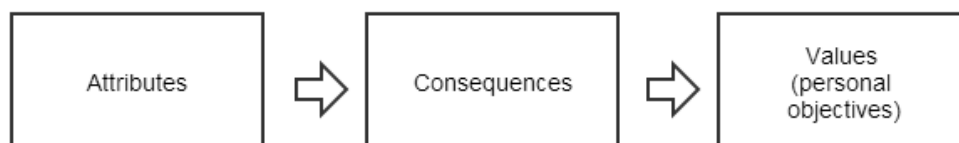


FIGURE 5 - Personal Construct Theory (Peffers, Gengler & Tuunanen, 2003)

FIGURE 5 above represents the generic relationships of PCT graphically. The PCT-based data-gathering methods seek to elicit information about the knowledge structures of people's by observing and analyzing how they differentiate among stimuli. One method that uses such technique is called "laddering" that is used to model consumer value structures related to preferences for products and their features. Laddering-technique has been used before (Reynolds and Gutman, 1988) for uncovering means-end hierarchies to define the key elements and their linkages between product and the perceptual process of consumers, which gives a more direct and more useful understanding of the consumer.

The laddering-technique can collect chains of features, reasons and values from a number of participants and this information can be used by product engineers to design new product features with potentially high customer value (Peffer et al., 2003.). Laddering is also frequently used with the means-end chain theory, which hierarchically describes the associations consumers have with specific products, services and brands. Means-end chain theory suggests that consumer's memory is hierarchically organized from means (product features) to psychological and social consequences and finally to ends (fulfillment of personal values). Laddering has traditionally been a method where the respondent is asked a series of "why"-questions, typically starting with the attributes that distinguish more-desired from less-desired alternatives. Asking for successful features creates a chain of elements leading from a product's attributes to one or a few terminal values and each learned concept becomes a sub goal for the final goal (Reynolds & Gutman, 1988; Woodside, 2004.).

The extended framework, CSC, has a straightforward relation with PCT and it refers the linkage of IS attributes to the previous method of Critical success factors (CSF). Adapting laddering methods to CSC allows researchers and practitioners to develop models that show the reasons why people prefer certain features in an information system. As seen from the FIGURE 6 below, the critical success chain can be used in a particular organization context with consequences limited to the organization systems and the values are either individual or corporate.



FIGURE 6 - Critical Success Chain (Peffer et al., 2003)

Since in the past the identification of best IS features and attributes has proved to be difficult, Tuunanen, Peffer and Gengler (2004) have presented a new method to effectively determine requirements for information systems involving widely scattered end users (such as customers, suppliers and business affiliates). They developed a method called wide audience requirements engineering (WARE) that supports the problems and the advisable features that are represented in wide audience end users requirements planning. The WARE-process includes a flexible yet structured interviewing process (laddering), cognitive modeling (CSC), interpretative analysis and a tool to present the requirements to managers from every step of the process. The use of WARE helps both managers and researchers to understand user preferences, reasoning and priorities (Tuunanen et al, 2004.).

5.3.1 Stimuli results

The participants of the research are presented a list of the stimuli and asked to rank order them in terms of importance. The first contact happened through email with an introductory presentation about the thesis object and the target platform. Shortly after that the participants were contacted by phone and invited to an individual face-to-face interview. At the end of each call, the participants were asked to give one idea of interest to them for a promotional ticket selling web site that they think may give them value while experiencing the system. Some participants contributed two or three ideas and after the first ten invitations we generated a list of stimuli ideas.

Generating the stimuli means that it is possible to start the interviews before all participants had even committed to taking part in the study. The list of stimuli ideas were grouped into special interest areas and they were based on Tuunanen et al. (2010) framework on value co-creation in consumer information systems. The description of the stimuli themes can be found in the Appendix 1. A list from the CIS elements and connected stimuli items can found from TABLE 2 below:

TABLE 2 - Consumer Information System (CIS) elements and stimuli identifiers

ID	CIS element	Stimuli item
1	Social nature of use	Social intercourse and socializing
2	Construction of identities	Event participant profile
3	Context of use	A service for various use purposes
4	Service process experience	Service contents and use experience
5	Participation in service production	User participation in event organization
6	Customer goals and outcomes	Enabling the event goals and objectives

5.3.2 Interviews

23 participants were invited for the interviews with all but 1 participant agreeing to the interview. The interviews were structured by using the laddering technique as presented by Peffers and Tuunanen (2005). The participants were first given a description of value co-creating information system to get them thinking about innovative and useful technologies that may result in enhancing their ticket sales experience. During the interview, participants were presented with a list of five special interest areas to get them thinking about potential features or ideas relative to an online ticket promotion and selling web site that they would like to see implemented. Also for the interview, there was further elaborated interest area from the list of stimuli to explain its potential application to the participants. Participants were then asked to rank the order of the interest areas in terms of their importance (see Table 3 below).

The actual laddering interview started with the highest ranked stimulus by asking the participant "How could this work for you" and the interview

then proceeded by asking the participant to explain why each particular feature was important to him/her. The goal of this is to determine the linkage between the key perceptual elements across the range of attributes (A), consequences (C) and values (V). “Why” is as a question that requires a precise answer and such answer is unlikely to reveal logical flaws and inconsistencies in the study (Reynolds & Gutman, 1988; Woodsie, 2004.).

The interviewees were selected from multiple companies with only two of them representing the same company. This was done in order to get a diverse feel of the case industry. Each interview lasted approximately 45-55 minutes and they were digitally recorded in a MP3 for later analysis. Also during the interview, the researcher took notes in a structured format on a Microsoft Excel spreadsheet. Taking notes on a spreadsheet kept the interview focused and enabled to recap all the features that appeared during the interview. Here is TABLE 3 on the demographic information of the interviewees:

TABLE 3 - Interviewees demographic information

ID	Sex	Age	Education	Position	Theme ranks
1	2	37	M.A.	Chief Development Officer (CDO)	5, 1, 6, 4, 2, 3
2	1	25	B.B.A	Chief Executive Officer (CEO)	6, 5, 1, 2, 4, 3
3	2	50	B.Ag.	Specialist	6, 5, 1, 2, 4, 3
4	1	36	B.B.A	Chief Executive Officer (CEO)	1, 6, 3, 2, 4, 5
5	1	27	M.Sc. (Econ)	Specialist	1, 2, 6, 4, 3, 5
6	1	35	M.S.Ed.	Education coordinator	4, 1, 5, 6, 3, 2
7	1	37	B.A.A	Chief Visionary Officer (CVO)	1, 6, 4, 2, 3, 5
8	2	38	M.SSc.	Education coordinator	3, 2, 6, 5, 1, 4
9	1	39	B.B.A	Chief Executive Officer (CEO)	3, 4, 5, 1, 6, 2
10	2	56	M.Sc. (Techn)	Chief Executive Officer (CEO)	2, 5, 1, 3, 4, 6
11	2	35	B.B.A	Chief Learning Officer (CLO)	1, 5, 4, 6, 3, 2
12	2	51	M.Sc. (Econ)	Chief Marketing Officer (CMO)	4, 6, 1, 2, 3, 5
13	1	28	M.Sc. (Econ)	Chief Networking Officer (CNO)	1, 5, 2, 3, 4, 6
14	1	55	M.Sc. (Techn)	Senior Advisor	4, 5, 2, 1, 6, 3
15	1	43	M.Sc. (Psych)	Chief Executive Officer (CEO)	3, 4, 6, 2, 5, 1
16	2	47	M.Sc. (Econ)	Chief Administration Officer (CAO)	3, 4, 6, 2, 5, 1
17	2	37	B.C.G	Chief Executive Officer (CEO)	4, 1, 5, 6, 3, 2
18	1	38	M.SSc.	Project Manager	6, 2, 3, 5, 4, 1
19	2	33	B.B.A	Chief Communication Officer (CCO)	1, 5, 3, 4, 6, 2
20	1	26	M.Sc. (Econ)	Project Manager	1, 5, 4, 3, 6, 2
21	1	24	B.B.A	Event coordinator	5, 1, 3, 4, 6, 2
22	1	25	B.B.A	Event coordinator	6, 2, 4, 1, 5, 3

Regarding gender, there were 13 male and 9 female participants (gender coding: 1 = male and 2 = female). Also presented are the education and the position in the firm. The ages of the participants were as follows: 6 participants were between 24-30 years of age, 10 participants were between 30-40 years of age, 2 par-

ticipants were between 40-50 years of age and 4 participants were over 50 years of age. The interviewees were asked to rank the stimuli themes (see TABLE 3) based on the subjective importance and relevance to the study case. Two of the most important themes according to the interviewee were carried out in to the actual interview. In the TABLE 4 below the frequency of each chosen stimuli theme as a top two theme is outlined.

TABLE 4 - Popularity of stimuli themes among participants

Stimulus theme	Frequency of choice
Social intercourse and socializing	11
User participation in event organization	10
Enabling the event goals and objectives	7
Service contents and user experience	7
Event participant profile	5
A service for various use purposes	4
<i>Interviewees own topic of interest</i>	0

As seen from the TABLE 4 above the “Social intercourse and socializing” was found to be the stimulus that the participants were the most interested in. Also more interactive theme “User participation in event organization” was found to be relevant and was chosen the second most frequently among interviewees. In the other end, “A service for various use purposes” was not found interesting or important for majority of the participants and was chosen least frequently into the interviews. None of the interviewees selected the seventh theme, which was available in order to give the participant a chance to discuss another topic that might be relevant in an online service for business events.

5.4 Result validation

To make any meaningful interpretation of the data collected for decision making, it is recommended that the data is gathered into smaller unified aggregated models and the integrity of the individual chains need to be preserved, because each chain represents participants’ own personal reasoning for system features (Tuunanen et al., 2004.). The researcher has a great role when discussing the validation of the data in an interpretive case study, but with careful writing and execution it can make a valuable contribution to both IS theory and practice (Walsham, 1995). This study chose an interpretive approach to get a more comprehensive understanding of value co-creation in the business event industry. The interpretive approach was chosen instead of a qualitative approach, because it enables a better interpretation of how reality and experiences are socially constructed (Walsham, 1995). In the business event industry there is a distinct relationship between event organizers and participants making it interesting to see possible means to co-create value around events.

In this study the data (attributes, consequences and values) was entered on a spreadsheet and the interviewee was later asked to confirm that the written interpretation was correct. The data was recorded in the notes as chains of features-consequences-values as described by Peffers et al. (2003). The data from each interview was recorded as several chains to represent the interviewees thinking of the relationship between online service system attributes or features, consequences to these attributes or features and the end goals and values of these attributes or features. This Personal Construct Theory-based data gathering method seeks to elicit information about people's knowledge structures by seeing how they differentiate among stimuli themes (Peffers et al., 2003.). After the interview sessions the interview recordings were listened to again to sharpen the interpretations on the chain descriptions. As the values and goals were written in a free form in the spreadsheet, they were analyzed on several occasions to identify and group similar attributes consequences and values. Finally, there was a more comprehensive understanding of the chains and it was possible to create identifying names for the attributes, consequences and values while obtaining the same abstract level.

5.5 Data analysis

This research used an interpretive clustering analysis, which started by assigning each chain to the interview stimuli theme where it came to discussion. After the interviews the raw interview data was parsed into logical chains of attributes, consequences and values. During this process the interviews recordings were listened to get a clear understanding of when a new train of thought for the interviewee started and another one ended. In the spreadsheet, there was a column for attributes, consequences and values with the idea of later grouping each chain to clusters. Once these chains were assigned to their respective themes, the interpretive clustering analysis was carried out.

Each original data chain gathered from the interview was examined with the intention to find new occurring attributes, consequences and values that were overlooked during the interview either by accident or other reason. As an essential part of this process the similar sounding words and expressions from the interviewees needed to be streamlined into more general wording. It was important that during this process the level of detail was kept consistent in so that the data could be comparable. The chains were then gone through by the objective of looking for new attributes. After finding more attributes from the existing data chains, new identical chains were created with the new attribute identifications. This method is called double-coding and it prevents data from being lost during the analysis process.

The double-coding process was done for all attributes, consequences and values to each of the original interview chains and ultimately there were 321 double-coded data chains created for the rest of the analysis. After the double-coding process there were 321 identifying attributes and consequences, but only 282 identifying values, since not every feature or attribute lead to a distinguish-

hable value. The interview chains without a defining value were simply marked as N/A (not available). The distribution of the chains across the themes can be seen from the TABLE 6 later.

Next in the analysis process was the creation of graphical maps for each theme. Each theme map represents a subjective graphical interpretation of the associations between attributes (features), consequences and values. Having created the network maps there was a chance to deepen the understanding of the subject and give answers to the research question how these features might differ in B2B use context. The theme maps were created with the intention of giving a realistic visual presentation of interviewee's collective answers to each inside each theme. To do this, a number of factors were taken into account: the number occurrences during the interview chains, relevance to the theme, similarities in attributes (to form clusters) and identification of neighbouring values and goals.

Finally, there were tables created to demonstrate the distribution of data chains across the interview themes and to see how attributes, consequences and values distributed to the themes. The results of were then analyzed and compared with similar previous studies. The phases of the data analysis process and the number of chains discovered in each analysis phase can be seen in TABLE 5 below:

TABLE 5 - Descriptions of the data analysis phases

ANALYSIS PHASE	DESCRIPTION OF THE ANALYSIS PHASE	# of chains
1. Collecting data during the interviews	Collecting raw data from the interviews into a spreadsheet and trying to parse it into logical chains. Each interview has two stimuli themes to run through. The data is still somewhat unclear and has dispensable notes.	0
2. Clearing the data chains	Clearing unnecessary notes from the raw data and parsing it into logical chains of attributes, consequences and values. Using the interview mp3-recordings to get a clear understanding of the interviewees train of thought. 178 initial chains were gathered.	178
3. Double-coding the attributes	Going through all of the original chains, by the objective of finding new attributes. When finding a new attribute, the whole data chain copied and the attribute is named after the new identifying attribute. A total of 71 new attributes was found.	249
4. Double-coding the consequences	Going through all of the chains after double-coding the attributes. When finding a new consequence, the whole data chain is copied and the consequence is named after the new identifying consequence. A total of 58 new consequences was found.	307
5. Double-coding the values	Going through all of the chains after double-coding the consequences. When finding a new value, the whole data chain is copied and the value is named after the new identifying value. A total of 14 new values was found.	321

6. Creating graphical theme maps	Creating graphical theme maps for each interview theme. Each maps represents an subjective graphical interpretation on associations between attributes (features), consequences and values. The maps stand as a visual presentation of the interviewee's collective answers. In creation of the maps, some factors were taken into account : # of occurrences in the data chains, relevance to the theme, similarities in attributes (to form clusters) and neighbouring values.	
7. Creating tables of the data distribution	Creating tables to see how the data chains distributed across different themes and how attributes, consequences and values distributed to the themes. The results were analyzed and compared with previous research. Implications of the results were then discussed.	

6 FINDINGS

This chapter presents the interview results and the data distribution across themes. The chapter also presents the number of attribute, consequence and value occurrences. Finally, to provide a graphical representation of all themes, there are network maps to illustrate the causality between attributes, consequences and values.

6.1 Interview results

Here the results of the interviews are presented. First the number of chains assigned to specific themes is analyzed to get a better understanding of the data distribution. Then there will be a closer look at the distribution of attributes or features, consequences and value across different themes to get more detailed understanding of the identifying names and frequency of appearances in each theme.

6.1.1 Data distribution in the interviews

A total of 321 chains (including double-coded chains) were coded from the raw data written down during the interviews. The number of chains assigned to each theme can be seen from the TABLE 6 below.

TABLE 6 - Number of chains assigned to themes (including double-coded chains)

Themes	Number of chains
Social intercourse and socializing	92
Event participant profile	33
A service for various use purposes	26
Service contents and user experience	62
User participation in event organization	50
Enabling the event goals and objectives	58

As seen from the TABLE 6 above the “Social intercourse and socializing” had the most number of chains (92) when taking in account the double-coded chains. This is as expected since the theme also was chosen most frequently to the actual interview (11 times, see TABLE 4). However, the next most chosen theme “User participation in event organization” didn’t create as many chains (50) although being chosen the second most frequently to interviews. Instead, the theme “Service contents and user experience” created (62) chains, while only had been chosen 7 times to the actual interview. The attributes and features divided across the themes are being listed in the TABLE 7 below.

TABLE 7 - Distribution of attributes and features per theme

Attribute / feature name	1	2	3	4	5	6	Σ
Blog	1		3	2			6
Chat-customer service	3					2	5
Shop for supplementary material						2	2
Data bank		2			1	2	5
Discussion forum	4	5		6		4	19
Event calendar	2		1		1	3	7
Event description	2			4		1	7
Event search	2		1	2		2	7
Event tags			2	5		1	8
Feedback tool	4				9	2	15
Guided registration process		1	2	6			9
Linking social media profiles	7	3	2	3	1		16
Linking third parties					3		3
Multichannelled communication	6		4			4	14
Need charting-form	8			1	3	4	16
Networking tool	7	3	2		2	3	17
Newsletter-subscription	3				7	3	13
Participant lists		3			1		4
Pictures and videos	3		1	11	1		16
Pre-assignments	2					4	6
Project management	1						1
Real-time messaging board	9					5	14
Recommendation of relevant events	2		3	3		1	9
Registration management	1		1	1			3
Speaker profiles	2	4		4		3	13
Stripped-down user interface	2			4			6
Summary material	8			2	4	2	16
Targeted marketing and analytics	3		2			2	7
Trailers	4			2		4	10
User profile	1	4				7	12
User reviews	3	1	2	2	5		13

Users own event list		5			1		6
Video trainings	2			2		3	7
Voting possibility					4		4
Web-learning environment	3					2	5

The most frequently occurred attributes or features in the themes were the "Discussion forum" (19) and "Networking tool" (17) indicating the desire for social and interactive features. Also other interactive features such as "User reviews" (13), "User profile" (12), "Real-time messaging board" (14), "Multichannel-communication tool" (14), "Linking social media profiles" (16) and "Feedback tool" (15) were also frequently mentioned in the interviews. Majority of the attributes (Summary material, Video trainings, Web-learning environment, Pre-assignments and Data bank) are related to the learning objective of the business events, but were not often mentioned. In general there was more discussion about concrete features than desired attributes such as "Stripped-down interface" and "Guided registration process" to an online service. In the TABLE 8 below, the distribution of consequences between themes is being presented.

TABLE 8 - Distribution of consequences per theme

Consequence name	1	2	3	4	5	6	Σ
Able to compare events	3	1	2	7		3	16
Able to improve the event	2	4		1	9		16
Brings out professionalism	6	9	1	4	3	4	27
Ease the learning experience	3	2		5	3	14	27
Getting contacts	4	3	3	2	5	7	24
Getting online visibility	9	2	2	4	4	3	24
Growing use of online services	3				1	1	5
Helps to create vibe	11	2	3	9	3	5	33
Informing on event contents	12	1	2	8	1	7	31
Lower the barrier of entry	7	2	4	13	3	2	31
Measuring the effectiveness	4	1	2	1	1	2	11
More active interaction	16	3	2	7	5	4	37
Personal feedback is detailed/exact	5	2	2	1	8		18
Sorting out customer needs	6		3	3	5	4	21

For consequences the most frequently appeared one was "More active interaction" with 37 occurrences. Other consequences that came up often "Informing on event contents" (31) and "Helps to create vibe" (33) were similar in terms of being involved to communication and intercourse between participants and organizers. Different attributes and features such as logical event search and convenient registration process helps to "Lower the barrier of entry" of participants and it was seen essential for an online service in the interviews. All in all the consequences (see TABLE 8 above) divided quite evenly. The distribution of different values and objectives can be seen from the TABLE 9 below:

TABLE 9 - Distribution of values per theme

Value name	1	2	3	4	5	6	Σ
Awareness & interest	12	4	6	13	2	6	43
Ease of use	6	1	5	7		2	21
Economical gains	8		2	5	2	8	25
Fun & enjoyment	11	1	2	8	4	3	29
Learning	8	2		3	5	14	32
Preparation	3	2			2	1	8
Professional credibility	4	8	2	4	3	2	23
Saves costs	5		2	2	1	5	15
Saves time	2	2		3	1	3	11
Sociability	16	6	3	7	8	9	49
Trust & security	9	3	2	6	5	3	28

From the distribution of different values (see TABLE 9 above) it can be seen that there are two values that are more emphasized than others. “Sociability” or the value of being in social interaction before, during and after a business event was seen as the most significant value and outcome in the industry. Another noteworthy value was “Awareness & interest”, which is to create attraction and fascination around business events and more specifically around business topics, speakers, products and services. While “Economical gains” and “Learning” got less occurrences they can still be considered the main outcomes and objectives that business events may have.

6.2 Theme - Social intercourse and socializing

Features: The first theme had three distinctive features emerging from the interview chains: multichannel communication tool, use of existing social media profiles and customer feedback tool. Multichannel communication tool included features such as targeted marketing and analytics tool. Specific communicational tools and services in this instance are social media services (such as Facebook, Twitter, Instagram and LinkedIn), e-mail communication between different stakeholders (such as organizers, participants, speakers and other third parties), newsletter-forwarding and SMS-messaging. Another oftentimes mentioned feature was the use of existing social media profiles, which can give the users the access to several other features, such as networking tool, discussion forum and real-time messaging board. Third widely recognized feature was the customer feedback tool, which also contains two other features: live chat-customer service and user reviews.

Consequences: According to the interview data one communication platform increases the work efficiency significantly, since a major amount of time and

resources goes to sending information into multiple channels and if event information gets updated it can get extremely laborious and frustrating. The multichannel communication tool helps on informing about the event contents and news to multiple channels and with target marketing and analytics tools the most efficient messaging channel can be recognized and focused on. The use of existing social media platform generally helps to increase the active interaction between event organizers and participants and helps to create vibe around the event. More discussion and hype around the event helps the event organizer to reach online visibility and new customer leads. The event participants are interested in joining the active interaction, because it helps them to bring out their own expertise and professional presence online. The customer feedback tool helps to receive personal feedback from event participants, which has been seen as more explicit and precise, therefore being more useful to the event organizer. Live chat-customer service and user reviews help to lower the barrier for event participants by creating trust and a personal connection between customers. Live chat-customer service can also be used as a mean to sorting out customer needs with fast-response times and has been found as a useful way to open up new customer relationships.

Values: The values and goals for event organizers for features above are general efficiency (saves times and costs), which usually lead to economic gains. For event participants these values can be seen more as soft values such as sociability, hedonic values (fun and enjoyment), trust & security and awareness & interest. Awareness among customers can also be seen as a bridge where the customer contact has been opened through different more approachable channels, but which ultimately leads to more business and economic gains. The theme map can be seen visually illustrated in FIGURE 7 below:

1. Social intercourse and socializing

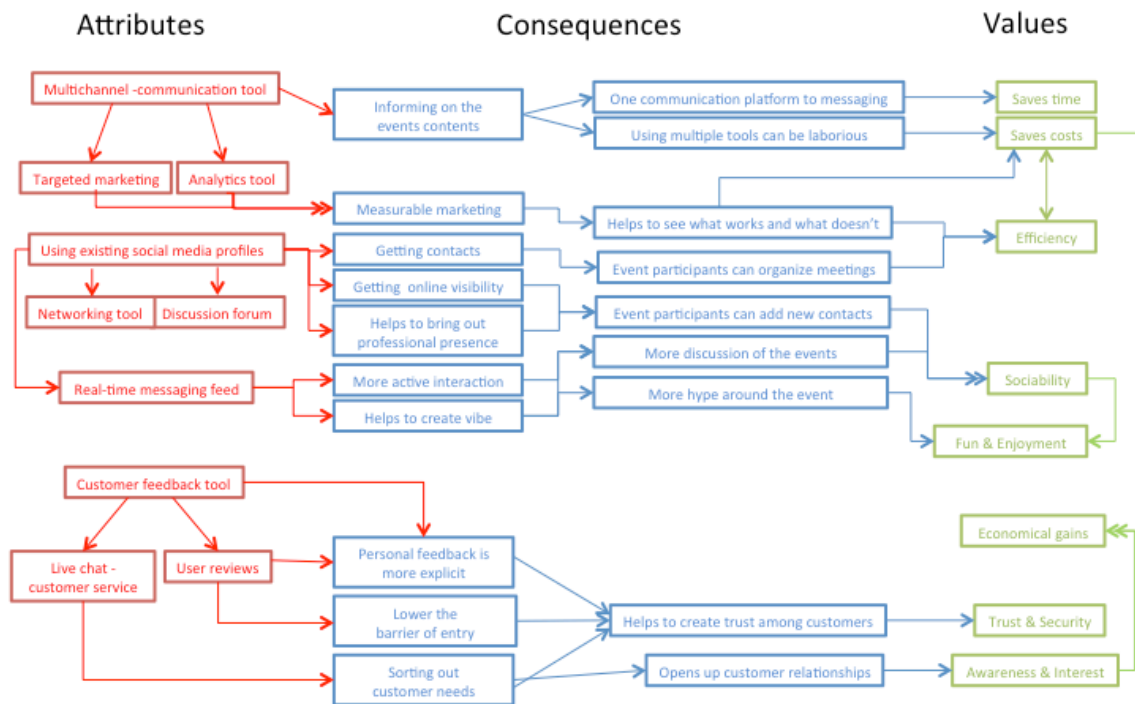


FIGURE 7 - Theme map "Social intercourse and socializing"

6.3 Theme - Event participant profile

Features: For this theme all of the features are connected to the main feature, which is the user profile. There are, however, different use scenarios and purposes included to the user profile: participant lists, business card type (e.g. LinkedIn) features (professional information, list of users events), networking tool and a discussion forum. There was also mentioned a distinction between a regular user profile and a speaker profile, where it was indicated that the latter should be highlighted and separated from the participant profiles to create a professional look and feel. One notable feature closely related to the user profiles that was mentioned the recommendation of relevant events. In this case the users would give the service necessary information such as profession, location and interests to being able to receive notifications on relevant events based on the users own preferences. The use of existing social media profiles was also mentioned to help and improve the registration process to be more guided and easy to use.

Consequences: The idea behind the collection of event participant lists was to use them as visible lists for organizers and other attendees to see. This would help the organizer to prepare the event according to the background information of the participants. The users own professional information helps to bring out the professional presence of the user and gives a good overall impression. The list of users own events was found to be as a way to create more interest around the events and there is a possibility that it would increase user participation to specific events. The networking tool with a possible discussion forum would help to create more interest around events and for the users to set up business dates even before the events. Recommendation of relevant events would lower the barrier of participation to events and help the users to compare different events. A significant consequence is simply on getting notifications and being reminded of particular events in the middle of a hectic business world. Finally, the guided registration process needs to be fast and easy process to avoid user frustration. Simultaneous registration with ticket purchase was a desired consequence among interviewees.

Values: Values for this theme's features include are mostly soft values that bring value to the participants, but has only indirect effects on economic gains for the event organizer. Better preparation and consequently the increased quality of the events is a significant value to the organizers that is being reached from different features such as participant lists, discussion forums and notifications of upcoming events. Professional credibility and sociability are related values that can be reached from different user profile features. Hedonic values (fun and enjoyment) are the end values that are reached with raised customer awareness through recommendation of relevant events, more active interaction with user profiles and with better usability in the registration process. The theme map can be seen visually illustrated in FIGURE 8 below:

2. Event participant profile

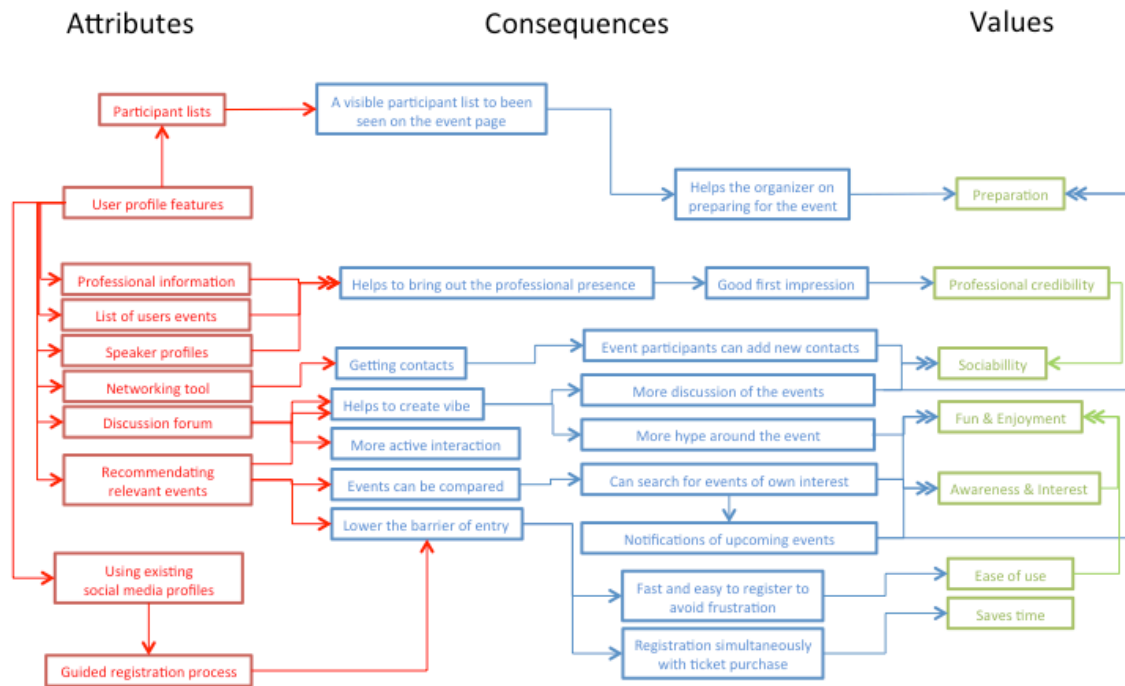


FIGURE 8 - Theme map "Event participant profile"

6.4 Theme - A service for various use purposes

Features: This theme is split into two larger clusters (multichannel-communication tool and marketplace) and also a separate feature (registration management). The cluster of multichannel-communication tool contains digital marketing methods of social media, e-mails, bulletins, newsletters, event organizers own website and print media. In the interviews it was mentioned that these traditional and digital media features should be combined as an event organizers tools in a service system. The marketplace cluster has more features in the customers and the event participant's point of view. Features and attributes inside this cluster are user reviews, event calendar, recommendation of relevant events, events tags and event search, while all of these but the user reviews are closely related. Event tag (such as event type, industry, date, topic and speakers) can be used as a more advanced and efficient way of event searching and comparing. A functional registration management is also a necessary tool for event organizers.

Consequences: The consequences for the first cluster include having only one platform for measurable and targeted marketing. These traditional and digital features can be used to getting online visibility and informing on the event contents. For the second large cluster the consequences include more vibe around the event, lowered barrier of entry to events and the easy comparison of events. Giving the participant enough information of the event helps to create trust among the user and therefore has economic effects. One notable consequence in the registration management is sorting out necessary customer information while the registration is being completed and ultimately utilizing this information more efficiently.

Values: Having one platform for measurable marketing ultimately gives the organizer an ease of use, which saves time and gives them efficiency in their work routine. Using multiple channels for marketing helps to create awareness and raising interest among participants, which ultimately leads to them having fun browsing and comparing the events in the marketplace. Comparing and searching for interesting events gives the participants a sense of trust and eventually gives the organizer economic gains with the purchase of event tickets. The theme map can be seen visually illustrated in FIGURE 9 below:

3. A service for various use purposes

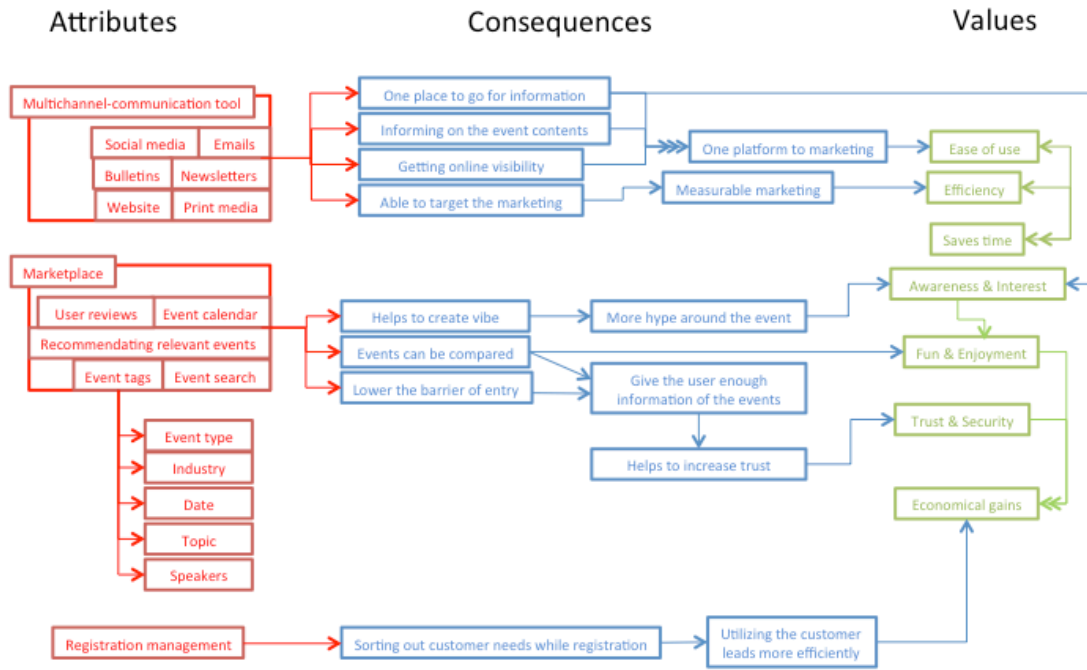


FIGURE 9 - Theme map "A service for various use purposes"

6.5 Theme - Service contents and use experience

Attributes: This theme is divided into two different viewpoints: the contents of an event page and the user experience of the service system. The contents of the event page are subdivided into event description, speaker profiles, pictures and videos and attachable features such as blog, user reviews and a discussion forum. As a similar, but distinguishable and separately mentioned feature there are trailers that can be shared and distributed individually across different marketing channels. Once again, the use of existing social media popped up during the interviews and was connected with user reviews and the discussion forum. As for the user experience point-of-view the features and attributes include stripped-down user interface, a guided registration process and a practical event search mechanism. As sub features, the recommendation system on relevant events and use of event tags came across in the interviews.

Consequences: For the contents of the event page, it was mentioned that the content should be interesting, appealing and easily shared. This helps to create vibe and adds a professional feel around the event. Discussion forums help to create more active interaction and professional conversations on timely business topics. User reviews makes it easier for participants to convince themselves to attending in specific events. The stripped-down user interface combined with a guided registration process and practical event search lead to avoidance of frustration and increase of the usefulness of the service system. The layout needs to have a clear and simplified layout, without any excessive colors or ads. This is said to end up looking as more professional and qualified. The recommendation system and event tags make it easier to find new events and thus the searching of the events becomes more logical and natural.

Values: Creating appealing and easily shared content with professional discussions and more hype around the event ends up generating more hedonic value and enjoyment to the customer. Eventually, presenting the right and necessary content ultimately leads to economic gains for the event organizer. Usability and the lack of frustrating elements in the service use experience saves time for the users and the participating into events becomes more efficient and desirable. The theme map can be seen visually illustrated in FIGURE 10 below:

4. Service contents and use experience

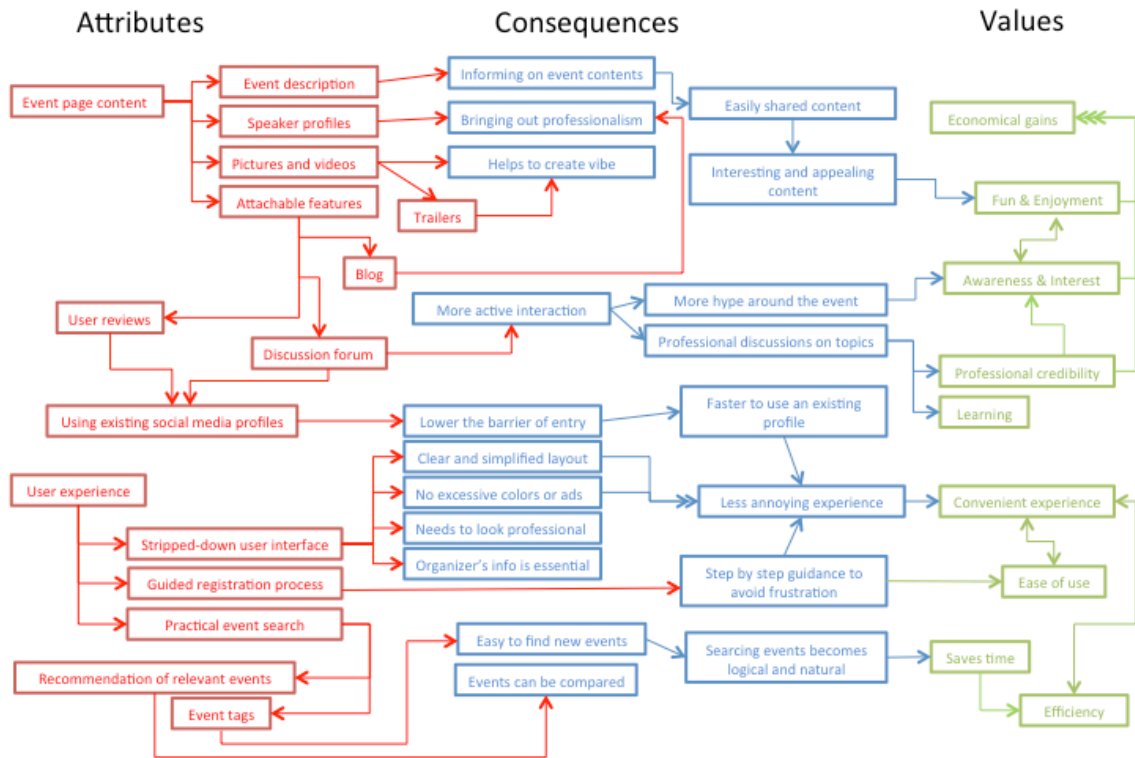


FIGURE 10 - Theme map "Service contents and use experience"

6.6 Theme - User participation in event organization

Features: The linking and use of existing social media profiles was found to be most efficient mean to attract the customers into participating in the event organization. Customer feedback tool can be linked into social media profiles along with other attributes and features such as participants lists, list of users events, newsletter-subscription, user reviews and real-time messaging. Networking tool was mentioned to be in relation with the participant list utilizing with giving the users a possibility for organizing business dates in events. Some other features mentioned along with the use of social media profiles include real-time messaging and a voting possibility. The real-time messaging can stand for a live message board that is used either physically in the live event or digitally in the service site. Voting possibility equally can either mean being done on a voting board during the actual event or digitally on a poll for instance. Finally, linking third party organizations and stakeholders as references was mentioned to be a notable mean to increasing user awareness.

Consequences: The use of user reviews and linking third parties as references wind up creating more personal and trustworthy opinions on events, which can lead to increasing amounts of customer contacts and more noticeable online visibility. According to this interview data users tend to trust well-known brands and people. Different methods of real-time messaging lead to more active interaction during and between events and also can give a possibility for the event organizers to do small research and sorting out customer needs based on the voting results and active message board discussion. Newsletter-subscription is based on users on preferences and desires therefore being seen as a positive element. List of users own events and participant lists help the event organizer in planning on specific programs and topics for attending users.

Values: Getting the users to give information on their preferences gives the event organizer a possibility for better preparation of an event and consequently economic gains. Using user reviews and linking third parties creates trust among users, since participants recognize and trust well-known brands and speakers. Creating more interaction through real-time messaging and a voting feature helps to create more vibe around the event and ultimately increase both hedonic values and learning outcomes. The theme map can be seen visually illustrated in FIGURE 11 below:

5. User participation in event organization

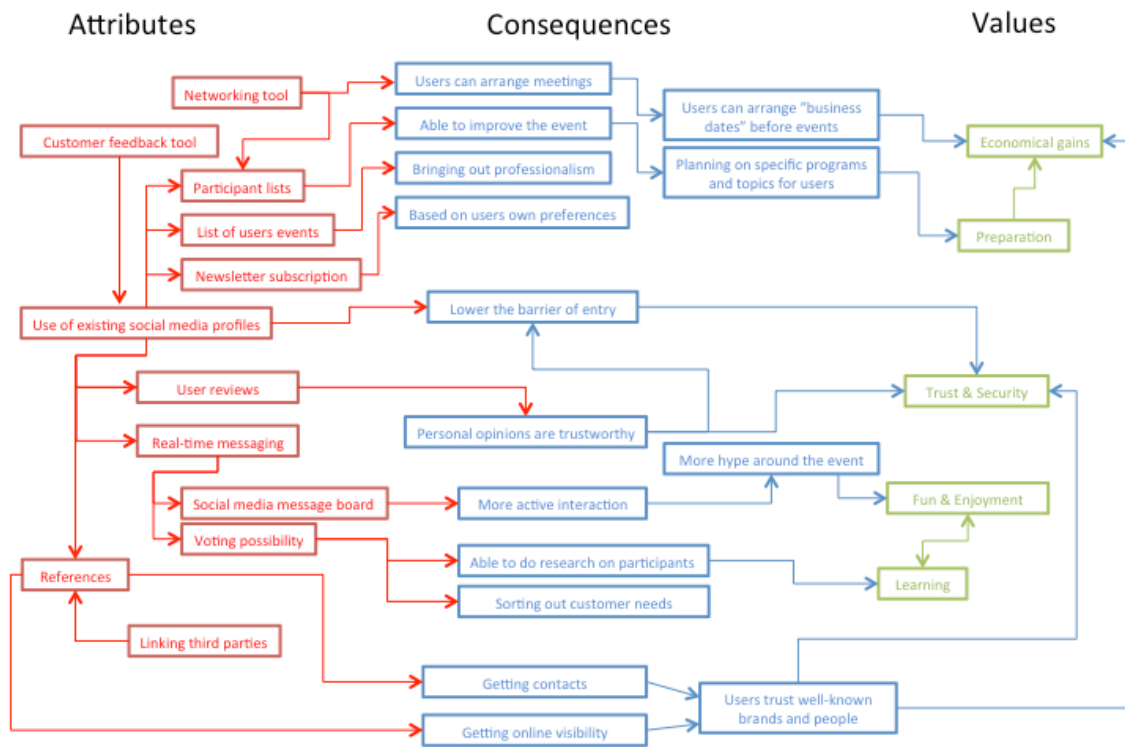


FIGURE 11 - Theme map "User participation in event organization"

6.7 Theme - Enabling the event goals and objectives

Features: The interviewees described three different distinct objectives and goals for events: economic objectives, learning objectives and networking objectives. The interview chains presented different features as means to economic objectives, which were: multichannel-communication tool, target marketing and analytics tool, event calendar, need charting-form, trailers and newsletter-subscription. For the learning objectives there was also widespread selection of features to help reaching the learning outcomes: sending out pre-assignments and summary material, having a data bank, having a training platform and the use of video trainings. Finally, the networking objective was seen as smaller, but still a separate objective that events usually have.

Consequences: For the event calendar and trailers the consequence is to get more online visibility and using viral marketing methods to promote the event. Newsletter-subscription and need charting-form mainly help to getting information and sorting out customer needs. For the learning objectives the consequences are more unified: to ease the participants learning experience. For video trainings there are also a possibility of offering specific niche trainings as a scalable business option, since recently the users have been getting more familiar with online training possibilities. The networking objective simply has a consequence of getting new contacts in events.

Values: Economical gains and getting revenue are the main values that event organizers seek from organizing business events from the economical viewpoint. Reaching this value can be helped by using viral marketing techniques and online visibility to save marketing costs and by selling video trainings as online products. The need charting online-form is being used to create trust and security among users, while helping the event organizer to receive valuable data of customers. The theme map can be seen visually illustrated in FIGURE 12 below:

6. Enabling the event goals and objectives

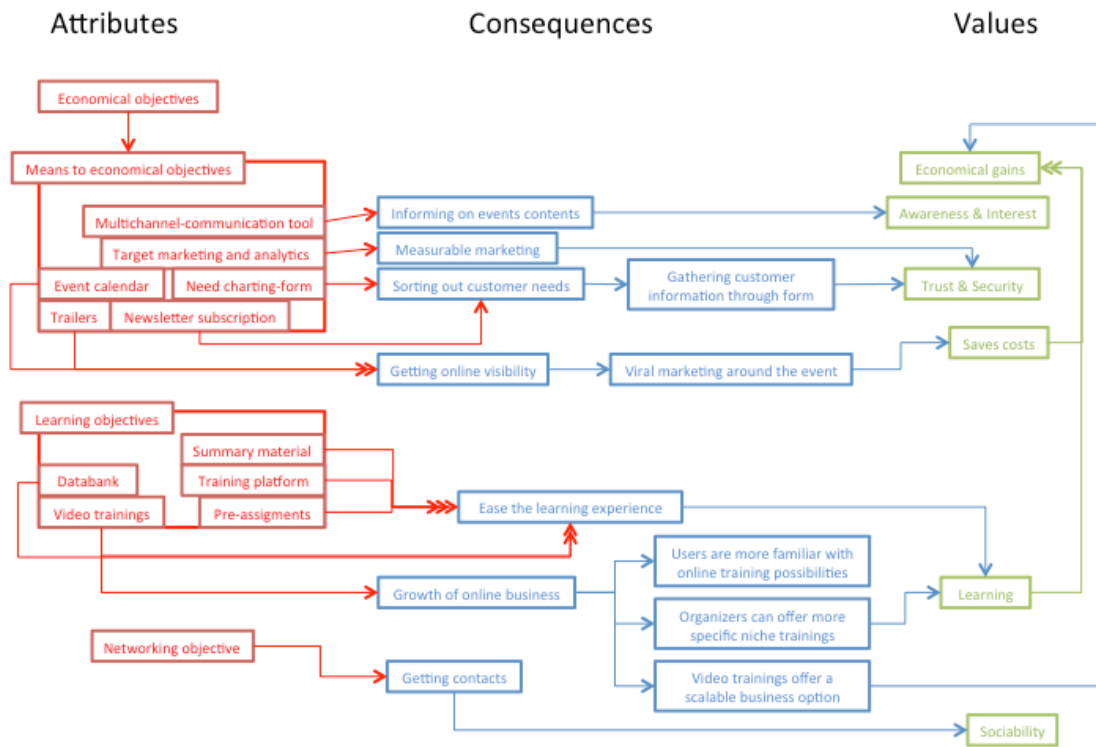


FIGURE 12 - Theme map "Enabling the event goals and objectives"

7 DISCUSSION

This chapter looks at how this research accomplishes its objectives and answers to the research questions. Also this chapter discusses how the findings compare with past literature and the theoretical model used as a framework for this research. Finally, the chapter presents the implications from the study to both research and practitioners.

7.1 Addressing the research questions

The main objective of this research was to evaluate the framework for value co-creation in consumer information systems from a B2B user standpoint. A point of interest was to understand the value propositions by the business event organizers and value drivers for the business event attendees. The main research question was:

- *How do the elements of value co-creation in a consumer information system differ in B2B-context compared to B2C-context?*

To address the research question of the differences in B2B-based use in consumer information system compared to B2C use, it can be argued that they often have different desired objectives in their use. The event organizers usually work in a B2B market and evaluate their use of a service system based on the work effectiveness. An online service that doesn't bring benefits in the form of saving time and costs was ultimately seen useless, even though the service might offer hedonic attributes and features. When the event organizers viewed themselves more as an event participant the features were more hedonic of nature.

Just like in B2C market, the social interaction between organizers and participants was seen as the single most important value and many of the desired features and attributes aimed at creating more active interaction between users.

In order to be able to answer the main research question an additional research question was added:

- *What are the known value propositions and value drivers in the business event industry?*

To answer the additional research question it can be argued that the elements of the research framework by Tuunanen et al. (2010) (See FIGURE 3) remain the same although with some new observations to consider. From the consumer's requirements and value propositions side the social nature of use remains relevant for value co-creation since the need for social features and attributes got the most mentions during the interview. The construction of identities was seen as creating users own profiles in this study. As the interview pointed out it was not necessary important for the users own preferences, interests and identity to stand out from the crowd, but instead only display the basic professional information of each user for networking and economical purposes. Also the desire for personalized user content was somewhat low compared to some implications from earlier research. The context of use was seen as dividing into two use purposes: more productive tools for organizer and an interesting marketplace for participants.

The core values and objectives that emerged from the case study that respondents have while attending to business events are learning, economical and sociability. The event organizers can only offer trust and security, fun and enjoyment, awareness and interest and sociability as value propositions (Vargo & Lusch, 2004; Grönroos, 2006) while it is upon the customer to experience the value. Upon the empirical data it is clear to say that customers want to interact with firms and thereby co-create value (Prahalad & Ramaswamy, 2004) with "Social intercourse and socializing" and "User participation in event organization" were chosen most frequently as the most interesting and necessary themes. Also for social features such as "Discussion forum" and "Networking tool" were mentioned most often and consequently, "More active interaction" was the most frequently occurred consequence.

The findings of the study suggest that in the business event industry there is a need for more efficient online tools. For the event organizers it was important to get cost saving features with a focus on targeted marketing through analytics tools and one platform to control the communication to multiple channels. Some of the other mentioned features included a networking tool, video and picture material, newsletter subscriptions and an organizer dashboard to conveniently update aforementioned material.

7.2 Implications to research and practitioners

In the conceptual CIS framework (Tuunanen et al., 2010) used in this study there are two sides: system value propositions and customer value drivers. The system value propositions are features or attributes that enable the value co-

creation, while the customer value drivers stand as the driving force for the customer to co-create value. The research by Tuunanen et al. (2010) indicated that consumers are motivated by both rational (utilitarian) and emotional-based (hedonic) evaluations of utility before their consumption decision.

Vartiainen and Tuunanen (2013) studied the framework further in a study on co-created value in geocaching and suggested that the core motivators for geocachers are searching and finding geocaches. They added that in geocaching the environment where the geocaching occurs also has a significant role. Further they added that according to the results the construction of identity played a lesser part in geocaching than what was first expected (Vartiainen & Tuunanen, 2013). This study looked at the same framework, but with a different case industry (business event industry) and with a specific B2B-context. The results of this study suggest that the core values involved in the business events are economical, learning and social interaction.

While the need for contextual support the service system in this case study was somewhat insignificant, the results suggest that there might be a use for users to construct their own professional identity with own network, interests and preferences. Also it was clear that there is a need to have clear distinction between event organizers and participants as users. Like other previous studies done with similar data gathering and analysis methods (Peffer & Tuunanen, 2005; Tuunanen et al., 2006; Vartiainen & Tuunanen, 2013) this study was also able to find distinct value patterns within the dataset.

7.2.1 Implication 1: The core values in the business event industry revolve around utilitarian goals and objectives

As was found in the study on mobile financial services by Peffer and Tuunanen (2005) the values from this study are also mostly utilitarian. The core values found in this study also revolve around utilitarian goals and objectives. The study by Peffer and Tuunanen (2005) focused on personal finances and mobile payments and a later study by Tuunanen, Peffer, Gengler, Hui and Virtanen (2006) studied how consumers prefer to use a mobile service in order to inform of their current presence. This later study by Tuunanen et al. (2006) revealed that the utilitarian and hedonic values were being balanced. There were distinct hedonic elements as value drivers, but also very clear utilitarian values to get economic gains.

Another study by Tuunanen and Govindji (2011) looked at interactive television services to study the development of an online IPTV learning system for university students. The values from that study showed that the students were rather goal-oriented and wanted the system to support their learning activities. Therefore the described learning value can be seen as utilitarian value rather than hedonic value. This results of this study suggest that while the hedonic and utilitarian values were somewhat balanced (Tuunanen et al., 2006), the values such as economic gains and learning outcomes can be defined to be more as utilitarian values in the same way as was found out in previous studies (Peffer & Tuunanen 2005; Tuunanen & Govindji). In this study the more he-

donic values such as fun and enjoyment or sociability had ultimately the purpose of being a bridge to the utilitarian goals and objectives. Unlike in the study by Vartiainen and Tuunanen (2013) the case industry could not be seen as a hobby or a whole life experience, but rather strictly a B2B market, without the object of giving meaningful, life changing experiences.

Bauer et al. (2004) stated that the hedonic effects provide an important role for users in evaluating the quality of a professional, information-based web service. Business users tend to appreciate efficient tools in a service system rather than hedonic values and a flow state in web searching. The results of this study reveal that in an online service the event organizers seek for work efficiency and utilitarian values while the event participants seek more hedonic values such as fun and enjoyment. Chaffey and Smith (2013) added that examples of added value could also be found in an online environment B2B markets where it is stated that B2B users look for more efficiency in their work whereas B2C users look to add efficiency and hedonic value in their life. This study confirms this understanding by getting similar results from the laddering interviews.

This study suggests that the core values usually weren't exclusionary, but instead linked to each other. From the organizer standpoint it was important achieve the ultimate work efficiency by saving time and costs with targeted marketing and analytics tools, multichannel-communication tool and a platform for sharing information and files. From the event participant standpoint it was important to enjoy the vibe around events, search and compare events, give user reviews and network with other participants. For this particular industry it was evident that professional look and feel is important in the contents of the service, any material of the events and presentation of possible user profiles.

7.2.2 Implication 2: The interactive and social elements were weighted most heavily in the CIS framework

In the case of business event industry, the elements of the consumer information system (CIS) framework were differently weighted. Firstly, the social nature of use (the social intercourse and socializing) was clearly the most weighted element from the framework. Secondly, the service process experience (service contents and user experience), goals and outcomes (enabling the event goals and objectives and participation in service production (user participation in service production) were moderately weighted. Lastly, the construction of identities (event participant profile) and context of use (a service for various use purposes) were the least weighted.

The service process experience had different desired outcomes for B2B (organizers) and B2C (participants) users. From the organizer standpoint the focus was on presenting visually appealing and informative content of events. In this case the organizers gave online value propositions and tried to lower the barrier of entry for event participants who looked at the service from a use experience perspective. In both cases, however, it was noted that the use experience needs to be easy and logical with a stripped-down service interface and

guided registration process. In this case study the participation in service production happened during the actual events and not necessary with online participation, although the need for online feedback tool, user reviews and real-time messaging board was mentioned as possible features.

The participation in service production can be seen as a relevant and needed part of the value co-creation process in business event industry. For the last element of the framework, enabling the events and event participants goals and objectives was seen very significant part of the value co-creation process. The utilitarian values such as work efficiency, economic goals and learning outcomes were clearly prioritized more than hedonic values in this case study. Therefore, the utilitarian values should be considered as having a major impact in value co-creation in a B2B-context.

The social intercourse and interactive features ended up being the most desired functionality in an online service and sociability came across often in all of the interview themes. Social relations are a basic human need that many interviewees found important to the use experience. As stated in the framework by Tuunanen et al. (2010) the service process experience does play a notable part and the experience needs to aim causing at less frustration for the users by ease of use and guidance in registration, logical search of events and stripped-down user interface.

Lamb and King (2003) stated in the Social Actor Theory that an information service system could have different types of users that take different roles while using the system. The actor dimensions are based affiliations, environments, interactions and identities (Lamb & King, 2003). In this study the event organizers want to be seen with professional online presence while for participants it is more important to have vibe and discussion around events. As Lamb (2006) added, business users have more interests and motives in their use than regular user, since the network identity differs in a B2B environment and it is more of a combination of actors own interests and the company's interests.

To summarize, the business event organizers are willing to offer a value proposition through the social nature of use, service process experience and goals and outcomes. It is up to the business event participant to realign oneself with these propositions through marketing channels and to decide whether to participate in a specific event or not. The sociable features and a marketplace can be also hedonic in nature and offer a push for participants value drivers, but ultimately the end goals are utilitarian in this B2B case context. These findings reassert the view that both system propositions and value drivers that enable value co-creation are very case specific and therefore differ significantly between different IT-enabled services.

7.2.3 Implication 3: Business event organizers need to understand the efficiency of an online marketplace

This study makes contributions for practitioners in understanding the key values and objectives that are related to the business event industry. The study proposes that there is a need for an online marketplace for this particular in-

dustry where the users are able to search and registrate themselves to business events. Although some competing online services were mentioned during the interviews, none of the interviewees could name a service that already does online promotion for business seminars and conferences through a marketplace. This can also be a suggestive business idea to create a marketplace for other industries since some of the regularities such as ease-of-use and convenient experience should remain the same.

For business practitioners it is also necessary to understand the modern online services should have interactive features and elements. The need for social intercourse online between the supplier and customer are as important in B2B market as they are in a B2C market if not even more so. The customers (users in context) need persuasion in order to make consumption decisions and social features provide assistance in opening a customer relationship and building a emotional connection. One way to create trust and security through online experiences are giving a possibility of user-generated content such as discussions and reviews on topics.

The shift towards service-oriented economies and the growth of digitalization are evident and therefore both researchers and business practitioners need to take focus in building a optimal service experience for users. This research looked at the necessary features and attributes to reach that optimal experience in the business event industry. This study indicated that business event organizers are suffering from lack of sufficient resources such as money, time and knowledge. The lack of these resources can cause the inability to properly promote business events online.

The studies also showed that some of the today's online services are built to be too complicated and a significant proportion of the daily work efficiency goes into doing simple tasks such sending emails and collecting registrations while the work resources should be directed more on improving the actual event. Therefore the online dashboard for event organizers would seem as a ideal and useful online service as long as it is easy to use and contains the necessary features. For some of the study participants the only marketing channel was word-of-mouth outside the Internet and it became evident that there is a need to successfully transform this traditional marketing channel into a digital form. This can be achieved by developing an online marketplace that let's event participants to create accounts and to generate "buzz" around events.

8 CONCLUSION

This chapter this study's conclusions are presented. First, the outcomes of the studies are summarized and linked to the research objectives and the research questions. Finally, the limitations of the study and possible topics and recommendations for future research are suggested.

8.1 Conclusions on the study

The objective of this study was to use empirical methods such as laddering interviews to explore how value is created in consumer information systems (CIS) used by B2B users. Furthermore, this work tried to take a step towards bridging the gap between information system development and online service value co-creation by conducting interviews from both business event organizer and business event attendee standpoints. This research used a conceptual value co-creation framework (Tuunanen et al., 2010) as a frame of reference to see if the CIS value propositions and value drivers differ in B2B-context. The original framework illustrates how consumer value is being co-created through system value propositions and customer value drivers. More specifically the framework is about the design and development of digitalized services with the focus being on consumers instead of organizational users.

The research by Tuunanen et al. (2010) indicated that consumers are motivated by both rational (utilitarian) and emotional-based (hedonic) values before making consumption decisions. Tuunanen et al. (2010) added that with this balancing of utilities the service experience becomes an significant piece of the process and consumers start to become dynamic participants in the production of goods and services they consume (Ostrom et al., 2010). However, some examples of efficiently added value in an online environment can also be found in B2B markets where business users look more for more work efficiency while regular users look to add hedonic value in their life (Chaffey & Smith, 2013).

This thesis was conducted as a case study on business event industry by using laddering study techniques (Peffer et al., 2003) and thematic clustering of interview data to find core values behind use experience and purposes of participants. This interpretive research approach was chosen, because it helped to see how reality and experiences are socially constructed (Walsham, 1995) and by gathering data from selected interviewees (n=22) with open-ended questions, it was possible to gain better understanding of business event organizers and participants' perceptions.

The results of this study indicated that the core values that respondents had while attending to business events are learning, economical and socializing. Most of the desired attributes and features mentioned during the interviews were aimed at achieving these core values and objectives. Also from interviews it could be seen that the core values usually weren't exclusionary, but instead linked to each other. From the organizer standpoint it was important achieve the ultimate work efficiency by saving time and costs with targeted marketing and analytics tools, multichannel-communication tool and a platform for sharing information and files. From the event participant standpoint it was important to enjoy the vibe around events, search and compare events, give user reviews and network with other participants.

For this particular industry it was evident that professional look and feel is important in the contents of the service, any material of the events and presentation of possible user profiles. The social intercourse and interactive features ended up being the most desired functionality in an online service and sociability came across often in all of the interview themes. Social relations are a basic human need that many interviewees found important to the use experience. As stated in the framework by Tuunanen et al. (2010) the service process experience does play a notable part and the experience needs to aim causing at less frustration for the users by ease of use and guidance in registration, logical search of events and stripped-down user interface.

The research objective was to interpret possible differences that might occur in service system aimed for B2B-market and as a conclusion it can be said that the organizers have different both similar and also different objectives when it comes to use purposes. The event organizers and participants both find sociability being the ultimate key factor in a service system, but the end-use of social features could end up differently. By more active interaction the organizers seek for making profitable business by getting new customer contact online and more personal and therefore more explicit feedback from their events. For the participants the social interaction translates into enjoyable online use experiences and being a part of "hype" around events by sharing content, giving reviews and discussing the topics in forums during, after and before the events.

8.2 Limitations of the study

Though trying to conduct this thesis as accurately as possible the limitations of the study must be recognized. This case research had only 22 interviews, while in the academic literature some of the similar studies (Peffer et al., 2003) have recommended to conduct 30 interviews to get sufficient data on the case study. Limitations of this study also include having too one-dimensional interviewee group, with having 21 event organizers and only 1 event attendee. Although, it can be argued that the event organizers can also answer from the event attendee's perspective with usually being active participants in competitor's events.

The descriptions of the stimuli's can be written or interpret wrong, because they were written and chosen in a rush. The relative weakness of some stimuli themes over another may also cause stronger themes to being referred to more often than the weaker ones. There was no thorough balancing done between the stimuli themes and this has to be noted, since the themes presented a significant part of this study. Yet, all of the themes got selected multiple times during the interview process so none of the themes was being ignored. Another limitation for the study was the lack of themes created from the interview data. Instead of creating new network maps from interview data this research only used the stimuli themes as the theme maps. While there weren't new theme maps being created, there was still identifying clustering being made from the interview chains.

As a limitation to the study the interviewee's could have had lack of knowledge of the possibilities of a modern online service environment and therefore the might have been limitations to desired service features. The participants didn't necessary have a lot experience using a service system based on promoting business events so a number of the answers were imagination-based. It can still be argued, that the knowledge level was sufficient in order to conduct this study, since all of the interviewees had experience of some online services.

As another limitation to the study can also be said that the data collected does not represent a wider population. All of the case interviewees were all based in Jyväskylä, Finland and therefore are not even representing the country as a whole. This study looked at the case industry from a domestic perspective even though it is an international industry. Although it can be said that the interview participants represented a wide scale of different sized business events so the sample size represents a relatively realistic view of the business event industry in Finland.

A part of the analysis process is based on the researchers subjective views and the capability to draw conclusions and therefore can't be viewed as scientifically exact. There may be attributes and features that the interviewees that can increase the co-created value in the business event industry they may not be aware of and therefore the proposed results do not cover all the aspects of value co-creation in business event industry. The interview participants largely relied on the interview themes and the issues around them. Therefore, the phrasing in

the interview themes becomes critical and that can lead to some misconceptions and lost information. Nevertheless, the insights gained from this study do not indicate of any major flaws in the empirical process. While the a part of study remains subjective, there was still consistency in the analysis effort and ultimately this study gives an indication of B2B-end-users' cognitive thinking processes and how they result in the direction of reaching values.

8.3 Recommendations for future research

This study was done as an interpretive research with the objective to understand the value propositions by the organizers and value drivers for attendees. The framework by Tuunanen et al. (2010) is heavily focused on consumers' instead of organizational users and therefore there was room for more exploratory studies from the B2B point of view. As Ostrom et al. (2010) also stated the areas of B2B-studies are being underrepresented in service research and therefore there is a growing need for more work.

This study makes a contribution towards increasing the understanding of the research framework from B2B context by stating that while the social values play a significant part in the B2B market, the hedonic values are mostly channeled to utilitarian values such as work efficiency with time and cost saving. There needs to be further research to examine the role of goal-oriented and experiential activities to increase our understanding in creating compelling online experiences. Especially in a B2B market such as business event industry, it is necessary to profile the end users (organizers, participants and business affiliates) and develop the service system according to each user groups needs.

Also the future research needs to further study the active participation users (both B2B and B2C) in the service production, since interactive features have proven to be desired in modern service systems. One aspect in studying value co-creating services should be the growth of online marketplaces and portals. The online portals can have key factors (Myungsin and Byungtae, 2005) such as offering relevant information for users' needs, user engagement, convenient access to information and value co-creation with customers that need to be further studied as a part of the value co-creation framework (Tuunanen et al., 2010).

Due to the qualitative nature of this research there was no quantitative testing done to see the exact origins of experienced values. This study remains qualitative in nature and more quantitative research needs to be conducted in order to get more scientific evidence to further validate the findings. Also there should to be more studies to find new ways to utilize the data gathered by the laddering methods. Future research should be on focusing on finding means to measure the hedonic benefits gained from consumer information systems to get a better understanding on how they compare with utilitarian benefits.

Getting more exact ways to analyze the empirical data and understanding the values driving the end users can help practitioners on developing online service concepts more efficiently. IT will have a role in the future of service in-

dustry and therefore it is essential to get more information on how customer experiences might differ in IT-enabled service systems. Service research has had an emerging trend on improving the design and development of digitized services (Ostrom et al., 2010) and information systems are increasingly targeting consumers and psychology behind the consumption decisions (Tuunanen et al., 2010), but as has been stated above, more focus needs to be taken towards understanding the values and motives behind B2B users.

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APPENDIX 1 - STIMULI THEME LIST

STIMULI NAME	STIMULI DESCRIPTION
1. Social intercourse and socializing	This means actions where the event organizers and participants are in communication with each other. Organizers can also network more efficiently with other organizers and organize cooperated events and marketing campaigns. This can also stand for pre-motivating the event participants or it can stand for sharing the experiences gained from the events in the form of pictures and comments in social media during the event or after the event.
2. Event participant profile	This means actions where event participants and organizers create a profile, which embraces the users own identity. The profile can emphasize expertise and create a positive first impression. The identity can be built on e.g. profile picture, job description and listing users own events. This can also stand for user reviews and comments that can highlight own behavior, way of thinking and identity.
3. A service for various use purposes	This means actions where the service offers different uses for event organizers and participants. For organizers such uses could be e.g. marketing, communication, customer service, registration management and ticket sales. For participants such uses could be e.g. browsing, comparing and buying tickets for events. This can also stand for the service being functional without being time or place dependent in different situations e.g. mobile functionality.
4. Service contents and user experience	For event organizers this means that the required event organizing tools are available for quick and easy use. For event participants this means that the service process experience has been made to as pleasant and interesting as possible in so that the user gets enough information of the events and the purchasing process is smooth. This can also stand for the user experiencing the browsing as a fun experience without having intentions to purchase.
5. User participation in event organization	For event organizers this means the necessary tools to collect customer feedback. It also means utilizing the feedback by e.g. user interviews, reviews, comments and citations. For event participants this can mean the opportunity to participate in the event organization process by evaluating, commenting, sharing information, voting and other by other means to improve the event.
6. Enabling the event goals and objectives	This means actions where the service enables the event organizers the right features to reach the event goals and objectives. This also stands for taking in account the event participant motives and offering the required tools for e.g. networking, learning and professional development.
7. Another theme: What else do you to be relevant in an online service for business events?	