LAUREA
UNIVERSITY OF APPLIED SCIENCES
Together we are stronger

Future-oriented approach for service concept innovation

Kytö, Antti

2015 Leppävaara

Laurea University of Applied Sciences
Leppävaara

Future-oriented approach for service concept innovation

Antti Kytö
Degree Programme in Service
Innovation and Design
Master's Thesis
November, 2015

Laurea University of Applied Sciences **Abstract**
Leppävaara
Degree Programme in Service Innovation and Design

Antti Kytö

Future-oriented approach for service concept innovation

Year 2015 Pages 124

The purpose of this thesis is to research how a future-oriented service innovation process model can be used to benefit joint ventures. Large IT companies must rethink how to survive in rapidly changing global business where disruptive start-ups regularly enter the same markets. Thus, new approaches in new service innovation and development strategies are needed.

The objective is to innovate new service concepts and engage business customers. The applied approach is experimental and includes two companies who arrange a joint venture innovation experiment to reach the objectives.

Key concepts from theories that include service-dominant logic, new service development, and futures thinking are discussed, adopted, and adapted. The design methods for the chosen service innovation process model are presented and identified as appropriate for developing a reliable, understandable, and transferrable empirical study in joint venture context.

The empirical sections of this report include discussion detailing the collection of relevant insights from the business domain and business environments. The insights went through an extensive evolution from concept to prototype to ensure that the future service experiences would be desirable for customers, front-end employees and related actors, as well as viable from the business perspective and feasible from a technical point of view.

As a result of this process, five preliminary service concepts were generated. Although two were classified as confidential, the three other preliminary service concepts - *pleasant banking encounter, crowdfunding* and *crowdinvesting* – served as the innovation process main outcomes. Moreover, 32 possible alternative forecasts were generated and collected for future consideration. Three new finance trends were detected during the data sense-making and forecasting process.

In conclusion, the study suggests that each of the three methods discussed here – the innovation process model, human-centric design approach and futures study practises –are capable of aiding in the development of new future-proof services. Stakeholder feedback and client surveys implicate that human-centricity should be encouraged during the service innovation process, thereby providing support for human-centric design thinking and futures thinking, which is grounded in the innovation process model. One of the biggest challenges was to engage the cooperatives (clients) and internal decision-makers in the latter stages of the process.

Building on the findings of the completed project, the author of this thesis provides evidence-based suggestions for strategic business development used to create more customer-centric and future-proof businesses and joint ventures. The conclusions discussed in the present work are applicable to similar organizations – large IT companies with a solid history - that want to develop a sustainable service-oriented human-centric innovation culture and alliances.

Keywords: foresight design, futures thinking, joint venture, service concept, service innovation, service design, service-dominant logic

Laurea-ammattikorkeakoulu **Tiivistelmä**
Leppävaara
Degree Programme in Service Innovation and Design

Antti Kytö

Ennakoiva innovointimalli uusien palvelukonseptien luomiseksi

Vuosi 2015 Sivumäärä 124

Tämän opinnäytetyön tarkoitus on tutkia miten tulevaisuus-suuntautunut palvelujen innovointiprosessimalli sopii yhteishankkeelle. Perinteisten suurten IT-yritysten tulee omaksua uusia menettelytapoja sekä palvelujen innovointi strategioita pärjätäkseen nopeasti muuttuvassa globaalissa liiketoimintaympäristössä, uusien kasvuyritysten mullistaessa markkinoita.

Opinnäytetyön tavoitteena on uusien palvelukonseptien innovointi sekä yritysasiakkaan sitouttaminen konseptien jatkokehittämiseen. Kaksi yritystä soveltaa kokeellisesti yhteisyritystoimintamallia saavuttaakseen asetetut tavoitteet.

Opinnäytetyö esittelee, omaksuu ja hyödyntää palvelujen markkinointiteorian palvelupainotteisen logiikan, uusien palvelujen kehittämisen ja tulevaisuusajattelun avainkäsitteitä. Työ esittelee valitun innovointiprosessimallin sekä valitut useita tutkimuksellisia kehitysmenetelmiä ja -työkaluja tarjotakseen luotettavan, ymmärrettävän ja siirrettävän empiirisen tutkielman yhteishankkeen kontekstissa.

Empiirinen osa käsittelee keskeiset tutkimushavainnot, jotka kerättiin liiketoimintaympäristöstä sekä ympäröivästä maailmasta. Tulkittuja havaintoja hyödynnettiin ennakoinnissa ja uusien palvelujen visioinnissa. Visioita mallinnettiin, havainnollistettiin, tarinallistettiin, kommunikoitiin sekä prototypoitiin yhdessä päättäjien kanssa, jotta tulevaisuuden palvelukokemukset olisivat suotavia keskeisten ihmisten kannalta. Keskeisinä tavoitteina olivat myös liiketoiminnallisesti ja teknisesti toteuttamiskelpoiset palveluinnovaatiot.

Yhteinen prosessi tuotti viisi alustavaa palvelukonseptia, joista kaksi todettiin luottamuksellisiksi. Muut palvelukonseptit olivat *mukava kohtaaminen, joukkorahoitus* ja *joukkosijoitus*. Lisäksi kolmekymmentäkaksi palveluluonnosta jäi jatkokehitettäviksi. Myös kolme uutta finanssialan nousevaa trendiä havaittiin ennakoinnin aikana.

Työ antaa viitteitä, että innovointiprosessimalli, ihmiskeskeinen muotoiluajattelu ja tulevaisuusajattelu tarjoavat piileviä mahdollisuuksia kestävien tulevaisuuspalvelujen muotoiluun yhteishankkeiden kontekstissa. Ihmiskeskeisyyttä tulee korostaa innovointiprosessissa. Kyseinen havainto tukee täysin innovointiprosessimallin muotoilu- ja tulevaisuusajattelun teoreettista perustaa. Hankkeen suurin haaste oli sitouttaa omistaja-asiakkaat sekä sisäiset päätöksentekijät jatkuvan palvelumuotoiluprosessin luomiseksi.

Työn lopussa tarjotaan kehitysehdotuksia strategisen liiketoiminnan kehittämiseksi, sekä kestävän asiakaskeskeisen liiketoiminnallisen kulttuurin luomiseksi, niin yrityksissä itsessään kuin yhteishankkeissakin. Työn tuottamia havaintoja tarjotaan vastaavien suurten perinteisten IT-yritysten hyödynnettäväksi, auttaakseen niitä kehittymään palvelulähtöisiksi, ihmiskeskeisiksi ja innovatiivisiksi yrityskulttuureiksi sekä edelläkävijöiksi.

Avainsanat: ennakointi, innovointi, muotoiluajattelu, palvelukonsepti, palvelumuotoilu, service-dominant logic, tulevaisuusajattelu, yhteishanke, yhteisyritys

Table of contents

1 Introduction

The world is in a constant state of change, and in fields such as information technology (IT) and business, those changes are happening faster than ever. Provider-centric marketing has shifted upside-down as the role of customer-provider relationships has changed (for example Prahalad & Ramaswamy 2004, 2-5; Wallace 2004, xi). Customers – whether individuals or corporate entities - expect service providers to proactively support and fulfil their heterogeneous and unique demands. At the same time, external forces such as digitalization, novel business models, and global markets challenge the status quo. New game-changers enter established markets, creating disruptions with innovative approaches to product and service provision. This myriad of challenges has been described as the "push of the present" (Inayatullah 2008, 8) and often engenders a change resistance reaction.

IT service providers, especially large ones, have been criticized for their inability to provide viable services required by customers. Products alone do not allow for successful competition in modern markets, and providers with more traditional marketing backgrounds are realizing that their previously effective marketing logic no longer fulfil customer expectations. Unfortunately, finance service providers can face additional challenges when their attempts to update and revitalize are met with resistance within the strictly regulated finance field, a set of circumstances referred to as the "weight of history" by Inayatullah (2008, 8).

Despite these challenges, the landscape of service provision continues to change. Technology evolves, unexpected events occur, new trends appear, and novel approaches emerge, each impacting both individuals and companies by disrupting the status quo. "Pull of the future" (Inayatullah 2008, 8).

The changing balance of customer-provider relationship and external market forces serves as a strong impetus for traditional companies to rethink marketing approaches and business relationships. However, an established reputation and existing capabilities are huge resources, and if a company is willing to strategically embrace change, they can benefit from fresh opportunities and future growth. Inayatullah (2008, 8) emphasizes the idea that every company *can* affect its plausible future, but much depends on the culture of the workplace, the employees, and the company itself. Instead of being at the whims of influences such as the "push of the present" and "weight of history," organizational leadership teams should ask: Which paths are feasible for our company and what actions should we take to ensure future success? Confronting the reality of change, focusing on customer needs, and proactively seeking opportunities for growth will provide a solid foundation that enables

business renewal. Current trends suggest that future markets will be controlled by customer-centric, widely–networked, and future-oriented service providers with strong roots.

Given the current state and future direction of the service provider spheres, many companies are taking intentional steps to guarantee their continued ability to meet customer demands. Two such organizations – Samlink and Fujitsu Finland – partnered together in a joint venture that is the focus of this thesis. The need for this study was recognized in 2013 following a survey of Samlink's customer satisfaction. The survey analysis highlighted five weakness areas. This study specifically explores the weakness in innovativeness as an opportunity for improvement.

1.1 Study purpose, objective and limitations

Academic literature in the fields of service marketing, new service development, and service research was collected and summarized in order to provide background and a deeper understanding of the issues addressed by this study. Additionally, practical design processes, methods and tools of multidisciplinary service design field provides approaches to new service development (Han 2010, 17). In recent work by Ojasalo et al. (2014, 2015) service and foresight design were combined into a new future-oriented service innovation process,model with systematic phases, methods and tools. *The purpose of this thesis is to research how a future-oriented service innovation process model can be used to benefit joint ventures.*

The objective is to innovate new service concepts and engage business customers. The case companies, Samlink and Fujitsu Finland, partnered to establish a joint venture experiment with a service and future-oriented approach. The innovation process model was applied as part of the empirical aspect of this study in an effort to fulfil the research aims. The following research questions were used to guide the present work:

- *How can design and a foresight mindset be developed within the joint venture?*
- *How can the new service development process be developed within the joint venture?*

Nature of this study: Research-oriented development

This study can be described as research-oriented development, which is a "systematic, analytic and critical" process by which scientific research is applied to practical solutions (Ojasalo et al. 2014, 19-22). Research-oriented development is intended to solve recognised challenges or to improve existing practices within a chosen organization. Additionally, using a research-oriented development approach allows for the creation of new, transferrable

professional knowledge, such as practical frameworks, for others to reuse. This approach is not intended to be utilized for the creation of frameworks of a more theoretical nature.

Limitations of this study

There are three limitations evident in this study, each of which is described below. However, only the first limitation has the potential to impact the validity, generalizability and transferability of the study.

Firstly, the innovation process model was adapted loosely and indirectly. The loose joint venture which comprised the empirical aspect of the study is somewhat novel in the realm of company collaborations. The case companies worked closely together. This arrangement provided *a safe place to fail* for the case companies, enabling them to learn more about one another's culture and facilitate success in future collaborations. However, Ojasalo et al. (2015, 200-201) stress the importance of service customer and user early involvement during the service innovation process, as it allows an organization to gain empathy and insight into the needs of each actor. For this project, interpretations of previously gathered data on customer needs were applied during the empirical phase. Two cooperatives were closely involved in the latter part of the process to co-design and envision the service concepts to ensure a realistic and relevant context.

Secondly, not all of the data and results can be disclosed for confidential reasons. During the empirical phase of the joint venture experiment some material and design outcomes were deemed classified and have been restricted. Additionally, all individuals and cooperatives involved in the study are anonymous.

Finally, the innovation process model was not applied in its entirety, not only because this was an experimental approach but also due to limited resources. Thus, the last phase of the process model - Conceptualize and Influence - was only scratched, and the new service concepts were not employed within the market.

1.2 Structure of the study

As can be seen in Figure 1, this study consists of four chapters. The relevant theoretical frameworks - service-dominant logic, new service development, and futures thinking - and related concepts are presented in Chapter 2. Chapter 3 describes the chosen service innovation process model, as well as explaining the methods and tools. Chapter 4 discusses the empirical study, specifically focusing on how the theoretical frameworks and the service innovation process model will be applied to the research objectives. Chapter 5 discusses the

conclusions, reflections and potential managerial implications suggested by the results of the study.

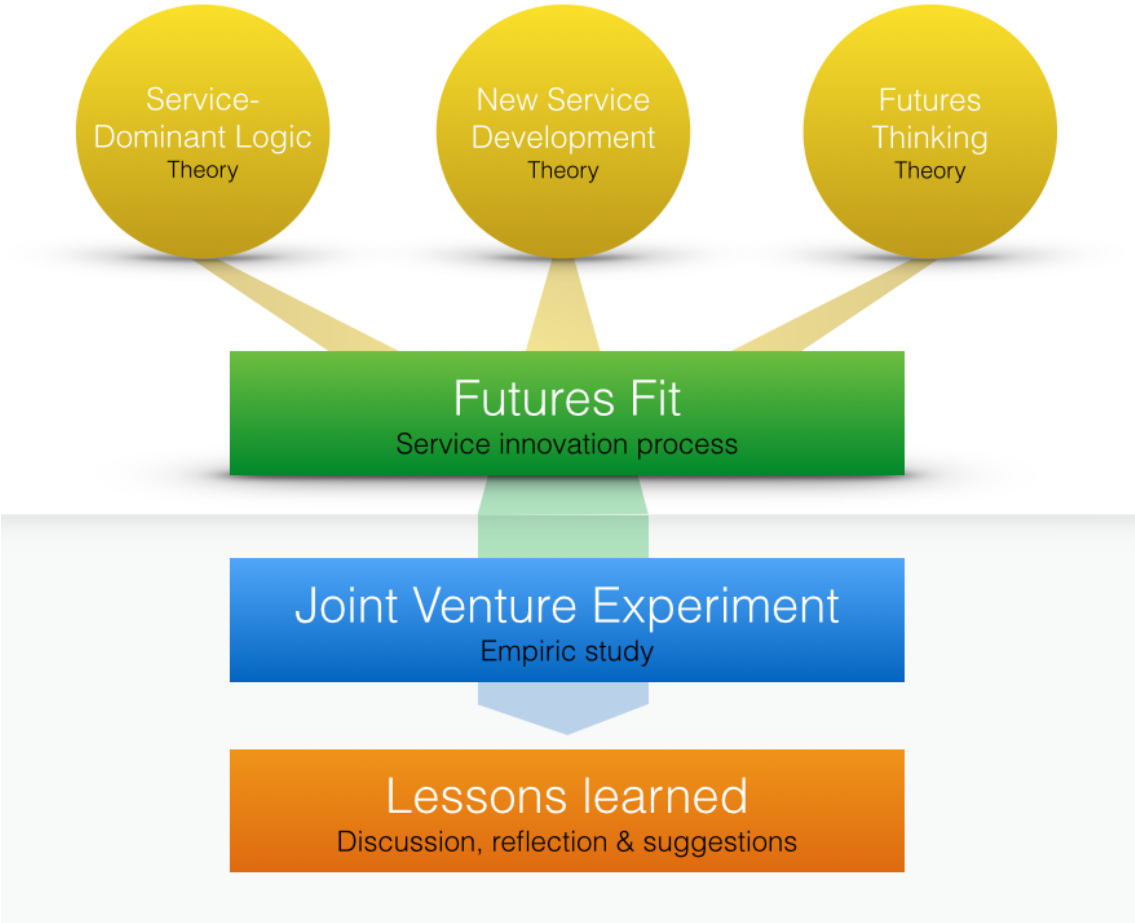


Figure 1: Structure of the study

1.3 Key concepts

This section presents and defines the key concepts used within this thesis. Establishing a shared understanding of the key concepts is necessary for ensuring that the theory, empirical study, conclusions, and reflections are appropriately interpreted and transferred into additional contexts.

Actor broadly represents any economic or social participant in the value network and service ecosystem (Lusch & Vargo 2014, 9-10, 56, 101-103). In the context of a service system an actor can be a larger unit – such as a firm, service provider, family, community, organisation, client, or company - or an individual - such as a customer, owner, user, friend, shareholder, stakeholder, employee, or servant.

Customer is an individual actor who is in customer-provider relationship (Vargo & Lusch 2014, 9-10, 56, 101-103). The term customer is often used interchangeably with the term **service user**.

Customer experience "[…] is perceived purely from the point of view of an individual customer and is inherently personal, existing only in the customer's mind" (Johnston et al. 2012, 7).

Foresight is created through an understanding of the past – hindsight - and present –insight - and allows for the extrapolation of relevant patterns to forecast potential future events (Kuosa, 2012, 5). A *strategic foresight* "[…] is about producing foreknowledge and strategic options for someone who wants to win a political, military or business battle" (Kuosa 2012, 54). Foresight is discussed in greater detail in Section 2.3.

Innovation process model is a novel future-oriented service innovation process model presented by Ojasalo et al. (2014, 2015). The model is a synthesis of service and foresights design methods. The model is presented more closely in Chapter 3.

Join venture is a loosely coupled collaborative undertaking of two case study companies presented by Wallace (2004, 10-12). Joint venture as concept is discussed more closely in Section 1.4.

New service development is a marketing research field related area that focuses on service development (Fitzsimmons & Fitzsimmons 2000, 3; Han 2010, 8). New service development is discussed in greater detail in Section 2.2.

Service is defined as "[…] the application of resources for the benefit of another actor or oneself" (Vargo & Lusch 2014, 56). The use of tangible or intangible products, as well as actor interactions, can each be interpreted as service. According to Vargo and Lusch (2008a, 7), service is "[…] the fundamental basis of exchange" and is exchanged for the benefit of each actor. Economic currency or social capital "[…] provides a right to future service" (Vargo & Lusch 2014, 57).

Service concept is "[…] a shared and articulated understanding of the nature of the service provided and received, which should capture information about the organising idea, the service provided and the service received – the experience and outcomes" (Johnston et al. 2012, 61). *Service provided* represents the service provider's view of the service concept. In turn, *service received* represents the customer's view of the service concept. The service

concept is an essential part of *new service development*. Service concept is discussed in greater detail in Section 2.2.

Service design is traditionally described as that which "[…] helps to innovate (create new) or improve (existing) services to make them more useful, usable, desirable for clients and efficient as well as effective for organisations. It is a new holistic, multidisciplinary, integrative field" (Moritz 2005, 6). However, service design as a concept is evolving, resulting in new and various definitions (Miettinen 2012, 6). Service design is included within the tools and activities of *new service development* (Fitzsimmons & Fitzsimmons 2000, 5; Han 2010, 15-16).

Value is defined here as a "[…] benefit, an increase in the well-being of a particular actor" (Vargo & Lusch 2014, 57). Value is unique, defined and evaluated by each actor in a networked service system. Value can be analysed by the *use* (value-in-use) of each actor, but it cannot be transformed, delivered, exchanged, or embedded within a service or service outcomes (Vargo & Lusch 2004b, 6; Vargo et al. 2008, 147-149). A good or service is not valuable in and of itself until an actor - specifically a user - *uses*, interacts with, or meaningfully experiences a good or service (Vargo & Lusch 2004b, 7; Vargo et al. 2008, 147-149).

Value co-creation describes the idea that the value received by the beneficiary is always co-created within value networks and service systems. Vargo and Lusch (2014 15, 68-70) stress the necessity of including a customer in the value co-creation process.

Value proposition, in the context of this study, refers to "[…] invitations from actors to one another to engage in service" (Chandler & Vargo 2015, 8). This definition – generated using a service-dominant logic lens - emphasizes the idea that a company can deliver value propositions but not value itself (Vargo & Lusch 2004b, 7,11; Vargo & Lusch 2014, 71-72).

1.4 The case companies

The two case companies featured in this study - Samlink and Fujitsu Finland - have an extensive history of collaboration. However, the joint venture innovation experiment seen in the present work is a previously unexplored partnership style. Both companies, as well as the concept of joint ventures, are described and discussed below.

Samlink and cooperatives

Samlink is a Finnish company that provides information system services, products and solutions for clients in business and finance fields (2015a). In 2014, net sales of over 96 million euros were achieved and there were over 500 individuals employed with the company (Samlink 2015b). Samlink is considered a highly profitable organization.

Samlink's vision statement is "Knowledge, desire and technology – desired solutions for our customers' success in finance field" (Samlink 2015d). The value statement is "The pilot of progress. Positive pulse. The everyday partner. Results through collaboration" (Samlink 2015d). The company mission statement is "Samlink creates both cost-effectiveness and supports business growth and development by means of information technology" (Samlink 2015d).

Client companies come from various fields, such as banking, trading, industry, and energy. Samlink has 65 owners in total, the five largest of which are Aktia Savings banks, Oma Säästöpankki Oyj, Handelsbanken, POP banks and Posti Group Oyj (Samlink 2015c). For the sake of the present study, these owners are referred to as *cooperatives* because they both own and receive services within this relationship. Two of the cooperatives were involved with this study, but for confidential reasons, the specific cooperatives are not identified.

Fujitsu Finland

Fujitsu Finland is a relatively large company, employing a staff of over 2500 employees (2015a). The company is part of the Nordic region, including Sweden, Norway, and Baltic countries. Fujitsu Finland provides support services, cloud services, and IT system outsourcing to hundreds of companies and organizations. Moreover, the company provides turn-key solutions that deliver business benefits, streamline operations, and bring cost savings (Fujitsu Finland 2015b). Industries in the healthcare, finance, hospitality, industrial, retail, and public sectors are among the array of Fujitsu Finland clients. The company's service offerings include both infrastructure management and application projects.

About joint ventures

Berger et al. (2012, 87) describes joint ventures as falling into three broad categories: jointly controlled operations, jointly controlled assets, or jointly controlled entities. More specifically:

> A joint venture is a binding arrangement whereby two or more parties are committed to undertake an activity that is subject to joint control. The binding arrangement may, for example, take the form of a contract. The arrangement usually specifies the original capital contribution and the sharing

> of revenue or other forms of consideration and expenses between the ventures (Berger et al. 2012, 86).

According to Wallace (2015, 2-5), there are three different strategies that can be used to scale a "right-size" organisation for success within a market: organic growth, purchasing existing businesses, or strategic alliances. Joint ventures fall into the strategic alliance category, because the companies involved in a joint venture aim to learn from one another and gain long-term positive benefits by achieving goals that would be impossible alone. Wallace (2004, 7) explains that "A joint venture is the coming together of two (or more) independent businesses for the sole purpose of achieving a specific outcome that would not have been achievable by any one of the firms alone." Wallace (2004, 8-9) also stresses the importance of aligning values, cultures, goals and management in order to avoid friction, as well as uniting business goals and the overarching mission.

Individual companies can operate at loosely coupled, moderately coupled, or tightly coupled levels (Wallace 2004, 10-12). In a loosely coupled joint venture, agreement is hand shaken, marketing activities and resources are shared and companies understand revenue is likely to be imbalanced in the short term, but both companies will benefit in the long term. "Another possible purpose for a loosely coupled joint venture might be to allow the partners to access advanced technology that is too expensive for either company to acquire alone" (Wallace 2004, 11).

Applied joint venture setup in this study

For the present study Samlink and Fujitsu Finland formed a temporary alliance as a loosely coupled joint venture. Both companies provided the same resources for the experiment: time, premises, freedom, budget, and an agreement to work as an independent team with a mutual mission which performed as a single organisation. For this arrangement, Samlink acted as the business owner and the cooperatives were Samlink's business customers. The role of Fujitsu Finland was to support Samlink during the service innovation process in such a way that the team was able to reach the set objectives and to renew their service offerings. Fujitsu Finland has a complex network of partnerships, bringing a valuable contribution to the collaboration by ensuring a solid setup for the joint venture.

2 Service-Oriented Mindset for Desirable Futures

This chapter discusses theories relevant to the study. As can be seen in Figure 2, the theoretical frameworks identified and expounded as having influence on the present work are service-dominant logic, new service development, and futures thinking.

Figure 2: Theoretical frameworks in the study

The first framework to be explored - service-dominant logic - stresses the importance of every actor, and especially the customer, in broad service systems. Two different dominant logic theories within the field of service marketing are discussed in order to understand the differences in scholar versus practitioner perspectives on basic concepts such as *value* and *value creation* within a customer-provider relationship. Additional concepts such as *value proposition*, *engagement*, *service experience*, *value-in-use*, and *hyperreal service experience* are also considered and defined in order to establish an intact picture of the service experience.

Next, the theory of new service development is discussed to ensure that the reader fully understands the idea of *service concept*, as well as its role in the design of a new service. The elements of service concept are each explored individually in order to fully assess the overarching nature of the theory.

Finally, the theory of *futures thinking* is discussed in an attempt to illuminate the path and tools by which a company can positively impact its own future. Futures studies are directly tied to new service development, as well as practical service innovation and design. Concepts such as *trends*, *forecasting*, *anticipation*, *foresight*, and *scenario*, as they relate to futures thinking, are each briefly discussed.

2.1 Service-Dominant Logic of service marketing field

Academics and practitioners in the marketing field have extensively explored the ideas of customer value, value creation, and the role of products and services over the years. More recently, the idea of customer empowerment has gained traction as a topic of discussion among marketing scholars. There are four dominant mindsets within the scholarly debate: goods-dominant logic, service-dominant logic, service logic, and customer-dominant logic. The previously prevalent marketing mindset - goods-dominant logic (G-DL) – can be traced back to 1904 when it was established by Alfred Marshall, Arch Shaw, and Adam Smith (Vargo & Lusch 2004b, 1). In 2004, Robert Lusch and Stephen Vargo conceptualized an approach

distinct from G-DL and coined the term service-dominant logic (S-DL) for their new marketing mindset. The phrase *service logic* (SL) was coined by Christian Grönroos in 2006. Finally, the term customer-dominant logic (C-DL) was introduced in 2010 by Kristina Heinonen, Tore Strandvik, and Karl-Jacob Mickelsson.

Current debates often focus on *value* and *value creation* as they are interpreted by these various mindsets (Heinonen & Strandvik 2015). However, for the following reasons SD-L will be implemented in the present study. Firstly, S-DL is service-centric while G-DL is product-centric (Lusch & Vargo 2014; Vargo & Lusch 2004b; Vargo & Lusch 2008a). Secondly, S-DL has provides a more holistic view of various actors - both individual and unit - than C-DL, with a focus on interfaces within the myriad environments when value is created (Heinonen & Strandvik 2010, 535). Specifically, although C-DL focuses on the values, life, and world of individuals, S-DL instead takes a broader perspective, including more actors and unique roles. Because it is the primary theoretical lens utilized in this study, S-DL is reviewed in depth in this section.

Table 1 summarizes the foundational premises of S-DL. Although originally proposed by Vargo and Lusch in 2004, further revisions were added in 2008 (Vargo & Lusch 2008a), and, as a result of extensive academic debate, the premises were synthesized into the four axioms below.

Axiom 1:	Service is the fundamental basis of exchange
Axiom 2:	The customer is always a co-creator of value
Axiom 3:	All economic and social actors are resource integrators
Axiom 4:	Value is always uniquely and phenomenological determined by the beneficiary

Table 1: Axioms of S-DL (modified from Vargo & Lusch 2014)

Axiom 1 represents the cornerstone of S-DL. That is, *all activities rely on service in the end*, and this includes goods, which are described as serving the actor. For example, if a customer cannot use an iPhone and benefit from its use, then the product has no value. Alternatively, application of the S-DL lens to this context states that *value* is *co-created* with the actor when the device – in this case an iPhone - is *used* to, say, purchase an item from Amazon using a mobile banking app. As stated in Axiom 2, the customer is a necessary component of the *value co-creation process*. The customer (or user) perceives the service that a device, a mobile app, a bank and a mobile carrier enables. Productized services and providers allow the customer to experience a coherent service encounter, even when multiple actors were involved within the value co-creation process, as stated in Axiom 3. Although the owner perceives the *value-in-use* of several services (Lusch & Vargo 2014, 91), S-DL defines these separate *services* as a single *service* from customer's point of view. Therefore, according to

Axiom 4, co-created value and the perceived service experience is both *individual* and *defined by the beneficiary*. While the products and service providers enabled the self-service, other actors - Apple, Amazon, the customer's bank, and the user's mobile carrier in the previous example - *co-created* the customer's value *with* the customer. The customer is also in a customer-provider relationship with different service providers in what is referred to as a joint *service system* (Lusch & Vargo 2014, 170-172; Vargo et al. 2008). Essentially, different actors - companies, providers, servants, sellers, buyers, customers, owners, users, customers, families, etc. - co-create the value of each beneficiary and service experience (Lusch & Vargo 2014, 9-10, 56, 101-103).

Companies which operate under the assumptions of G-DL typically focus on mass production of their goods or services for consumers (Lüftenegger et al. 2012, 2; Vargo & Lusch 2004b, 7). G-DL suggests that value can be transformed and delivered *for* consumers, who then consume and destroy the value through the use of the products (Vargo & Lusch 2008a, 8). According to Vargo and Lusch (2014, 8, 91), in traditional GD-L the value is exchanged (*value-in-exchange*); that is, consumed but not experienced. Minor interactions, communication or supporting service have placed. This mindset is sometimes referred to as firm-centric thinking, as opposed to customer-centric thinking (Lüftenegger 2014, 25).

Although GD-L was once a predominant mindset, the service marketing field has distinguished itself from this approach and more recent academic discussions typically do not include G-DL (Heinonen & Strandvik 2015). When examining situations through an S-DL lens, "service is always what is exchanged, either directly or indirectly," as was evident in the previous example (Vargo & Lusch 2014, 240). Companies are only able to deliver *value propositions* for the customer (Chandler & Lusch 2015, 7), who decides if the value propositions were redeemed, and if value was co-created. The previous self-service example clarifies the fundamental differences between S-DL and G-DL mindsets, which are also summarized in Table 2.

	G-D logic	S-D logic
Value driver	Value-in-exchange	Value-in-use or value-in-context
Creator of value	Firm, often with input from firms in a supply chain	Firm, network partners, and customers
Process of value creation	Firms embed value in ‘‘goods’’ or ‘‘services’’, value is ‘added’ by enhancing or increasing attributes	Firms propose value through market offerings, customers continue value-creation process through use
Purpose of value	Increase wealth for the firm	Increase adaptability, survivability, and system wellbeing through service (applied knowledge and skills) of others
Measurement of value	The amount of nominal value, price received in exchange	The adaptability and survivability of the beneficiary system
Resources used	Primarily operand resources	Primarily operant resources, sometimes transferred by embedding them in operand resources-goods
Role of firm	Produce and distribute value	Propose and co-create value, provide service
Role of goods	Units of output, operand resources that are embedded with value	Vehicle for operant resources, enables access to benefits of firm competences
Role of customers	To ‘use up’ or ‘destroy’ value created by the firm	Co-create value through the integration of firm- provided resources with other private and public resources

Table 2: Goods-Dominant logic vs. Service-Dominant logic on value creation (modified from Vargo et al. 2008, 148)

With an S-DL approach, customers are invited and involved in interactions *with* a provider. Close interaction, including conversations between the provider and the customer, has been identified as a fundamental key to fulfil customers’ individual needs and expectations (Fisk & Grove 2010, 657; Prahalad & Ramaswamy 2004, 5), customer experience (Vargo & Lusch 2008a, 8) and customer *engagement* (Chandler & Lusch 2015, 8). The S-DL mindset is service-centric and focuses on the perspectives of both customers and service providers (Vargo & Lusch 2008b, 254, 257).

The fundamental premise of S-DL premise is that “There is no value until an offering is used – experiences and perceptions are essential to value determination” (Vargo and Lusch 2006, 44). Moreover, close interaction and customer-centricity are viewed as the ultimate starting points for excellent experiences and successful service businesses.

Service experience

By its nature, service is intangible and strictly related to experiences. A service provider can positively impact the customer experience only after learning what is valued within the service experience. Links between an individual service experience and brand image are discussed below.

How are the customer's unique experience affected within service encounters?

Customers are unique with their needs, expectations of delivered service, personal preferences, cultural backgrounds, conception of aesthetics, values and attitudes (Wilson et al. 2012, 42-43). Prahalad and Ramaswamy (2004, 10) explain that expected service varies not only with each individual, but also within different times, places and contexts. Service encounters and personalized experiences are created together through interactions amongst a variety of actors (Chandler & Lusch 2015, 18). To make service encounters personally valuable, service providers must understand *how* experiences are created.

Wilson et al. (2012, 39) explain that moods and emotions play a pivotal role in how customers as individuals perceive service encounters, how they judge the service encounter, and how they will remember the encounter afterwards. These memories influence the expectations that customers set before the next service encounter. Chandler and Lusch explain that "[the service experience] occurs before, during, and after a service encounter" (2015, 13). Therefore, individual moods and emotions significantly affect customer experiences – both positively and negatively.

Any statement about service experience can also be applied to experiences with employees and managers, because, as the frontline, these individuals often become the face of the experience. This adds complexity to the already multifaceted nature of service and emphasizes the need for proper service design. Individuals with positive attitudes can positively affect the customer experience and resulting satisfaction during the value co-creation process.

Why should a service provider be concerned with customer experiences?

Prahalad and Ramaswamy (2004, 2-5) describe how access to transparent information using the internet play essential roles in how customers interpret the quality of service providers. Customers are empowered to seek alternative service providers based on their *own* interpretations of a brand's image based on feedback found in customer communities (Lusch & Vargo 2014, 72). The image of a provider is only as strong as the total of perceived experiences of their customers which have, in many ways, equal in influence to the provider's brand image (Prahalad & Ramaswamy 2004, 213). Therefore, companies need to focus on improving service encounters, especially knowing that customers judge, position, and set expectations for companies based on such information. Edvardsson et al. (2002, 90) also suggest providers can improve their brand by focusing on customer experiences through innovation-driven service development.

Wilson et al. (2012, 39-41) explain that companies can't directly affect customer experiences. Each customer's personal needs and vision of service, derived from expectations, situational factors, and experiences with previous providers coalesce into a complex and unique encounter. However, indirectly affecting experiences is possible, and companies can minimize the influences of external and disruptive factors. Achieving these objectives requires strategic customer-centric service design, appropriate actions during each service encounter, and suitable service recovery activities to help a customer who has experiences a service failure. To avoid service failures that can both spoil value co-creation and harm brand image, providers must focus on fulfilling the initially proposed benefits for the customer (Lusch & Vargo 2014, 71).

Why should value propositions and customer engagement matter?

Another foundational premise of S-DL is "the enterprise cannot deliver value, but only offer value propositions" (Lusch & Vargo 2014, 71; Vargo & Lusch 2008a, 8). The customer must decide whether or not to involve a particular provider in the desired service need fulfilment (Lusch & Vargo 2014, 72).

Service systems are built from a complex network of actors (Chandler & Lusch 2015), each of whom proposes value and attempts to co-create value with each beneficiary, as described in Axiom 4 (see Table 1). Thus, to provide a seamless customer experience in value co-creation process, every individual must know understand the overarching goals of the service provider and how their actions impact those objectives (Chandler & Lusch 2015, 8; Lusch & Vargo 2014, 95). Transparency, extensive communication, and a shared comprehension between all actors for a given value proposition in the customer-provider relationship is required.

Chandler and Lusch (2015, 8) explain that value proposition may have different intensity to invite and engage customers to co-create value with the service provider. Typically, propositions with high intensity leads to service encounters. Chandler and Lusch (2015, 13) stress the importance of considering the nature of value propositions, stating, "Service experience evolves according to value proposition intensity and engagement." Organizations experiencing inconsistent service experiences can utilize theories of intensity and engagement to increase stabilization (Chandler & Lusch 2015, 12-15). For example, a value proposition with high intensity is used to engage a customer, then when the customer is highly engaged, low intensity value propositions are used to maintain the engagement. Additionally, if an existing customer is experiencing diminishing engagement, a provider can implement high intensity value propositions to stabilize engagement and retain the customer. The goal is to maintain a consistent customer experience, which can be achieved using value propositions functioning as service experience catalysts (Chandler & Lusch,2015, 15).

How does hyperreality support value co-creation before decision making?

Edvardsson et al. (2005, 152) have defined a conceptual framework describing how hyperreality supports customer value co-creation before decision making. The authors present six design dimensions that provide customers with an opportunity to explore potential new service experiences using *experience rooms*. Experience rooms are built and staged in physical brick and mortar settings, allowing customers to evaluate whether a service would be valuable to be worth buying. Hyperreality is a term that refers to these simulated service encounters which are intended to match reality as closely as possible. The design dimensions include *physical artefacts, intangible artefacts, technology, customer placement, customer involvement,* and *the service experience through hyperreality* (see Figure 3).

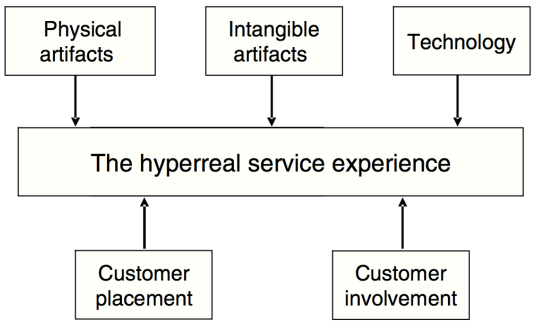


Figure 3: Design Dimensions of the Experience Room (Edvardsson et al. 2005, 154)

Physical artefacts include tangible items and aspects of service that can be seen and touched in the brick and mortar world. *Intangible artefacts* are visions about future experiences typically created and shaped within the customer's mind. The *technology* dimension supports both interaction and value co-creation as facets of the customer experience. *Customer placement* helps customer connect with other customers to envision potential service experiences. The primary focus of this framework is on *customer involvement*, encouraging customers to interact with the experience rooms in such a way that supports the formulation of unique experiences. The culmination of each of these design dimensions is the creation of the customer's *hyperreal service experience*, in which customers can experience realistic service experience possibilities.

Providers will not survive if they cannot adapt to address value propositions and unique activities for various beneficiaries in a complex value network (Lusch et al. 2010, 21-22). Learning is essential for organizational success, and learning occurs by market testing of hypothetical value propositions. Collecting information and feedback allows for the proposal and validation of hypotheses that lead to new service development.

2.2 New service development

In this section, the theories of customer-centric *new service development* (NSD) and *service concept* are defined and discussed. Additionally, the importance of customer and front-end employee involvement in creating win-win situations using NSD decision-making is explored. Finally, the importance of customer experiences in enabling a company to create, improve and maintain its competitive position is reiterated.

NSD processes often represent a challenge to a company's ability to execute intentional actions in an effort to achieve its strategic goals (Prahalad & Ramaswamy 2004; Wilson et al. 2012). Design thinking, service design, creative problem solving and critical thinking are methods that typically drive the NSD process (Liedtka et al. 2013; Randhawa & Scerri 2015; Stickdorn & Schneider 2013; Tschimmel 2012). Common to all these different approaches is the importance of learning from customers, as well as gaining in-depth understanding of the problem. Furthermore, each of these varying approaches prioritize a customer focus as well as iterative development of potential solutions to optimize improvement efforts.

There is no single dominant process for NSD. Different variations, adaptations, understandings and ideologies appear. Tschimmel (2012, 5-11) explains that similar to the different kind of problem solving methods like *IDEO's 3 I Model*, *IDEO's Human-Centered Design Model*, *Double Diamond Model of the British Council* and *The Model of the Hasso-Plattner-Institutes* is that each NSD process should begin from deep understanding and identification of problem before moving forward.

NSD, as the development of *new* service, is a bridge between two worlds – the academic realm of marketing and service theories, as well as the more applied realm of service design action. Depending on customer input and potential market challenges, service design actions can range from radical innovations to incremental improvements or minor facelifts of existing service extensions (Wilson et al. 2012, 173-174) . Applying S-DL to NSD can aid more traditional companies in shifting focus to more customer-centric thinking.

Service concept

Goldstein et al. (2002) state that the service concept - where a vision of overall customer experience and detailed service encounter processes are defined - is an essential, but often missing, component of NSD.. Specifically, the authors state:

> The service concept not only defines the *how* and the *what* of service design, but also ensures integration between the *how* and the *what*. Furthermore, the service concept can also help mediate between customer needs and the organization's strategic intent (Goldstein et al. 2002, 124).

Moreover, the service concept can be used to connect business strategy and service design to service design planning. In order to ensure that a new service will reach strategic business goals, fulfil the shared vision, and create an ideal customer experience, measuring choices is essential during the NSD process.

Johnston et al. (2012, 47-48) explain that service concept theoretically combines the customer's views of a service with that of the service provider. The authors suggest that "It is something that is more emotional than a business model, deeper than brand, more complex than a good idea and more solid than a vision" (Johnston et al. 2012, 48). Moreover, the service concept should be jointly shared and clearly communicated to help employees of the service provider understand the essence of *service provided*, as well as how a customer should perceive the *service received*.

According to Johnston et al. (2012, 48), there are three concepts which are essential to understanding and properly improving the customer-provider relationship: service provided, service received, and service outcomes. *Service provided* represents the provider's perspective and includes the *service process,* designed from customer's point of view, and service offerings, or *outputs*. Alternatively, *service received* represents the customer's point of view and includes the desired *customer experience* and *service outcomes*. Finally, *service outcomes* are the results of the service process and perceived experience and are categorised strictly from the customer's point of view: *products* (tangible or intangible service artefacts), *benefits* (similar to value), *emotions*, *judgements* (the conscious or unconscious interpretation of experienced service and value) and *intentions* (plausible actions after judgement) (Johnston et al. 2012, 8).

Why is service concept needed in NSD?

A service concept can be described as a strategic communication tool that integrates the mutually defined s*ervice provided* and *service received*. In this role, the tool is used to *organise ideas* and communicate the proposed value of each actor - especially the customer - in the development of a new service (Johnston et al. 2012, 51-53). Johnston et al. (2012, 54) state that service concept is also an alignment tool, transforming company direction and purpose into functions and activities. This alignment requires designers and employees to mutually adopt, evaluate, and clearly communicate what they consider the most essential service descriptions in order to clarify how to meet their operation goals and customer expectations. Incorporating a service concept often translates to a gain in strategic business advantages, facilitating the creation of service innovations and enabling the organization to challenge competitors. Johnston et al. (2012, 54) suggest that "[…] the service concept

provides an ideal vehicle for challenging the status quo," which then motivates managers to review and to reinvent their service offerings.

Important role of customers in NSD

Many prominent researchers highlight the importance of active involvement by both customers and employees throughout NSD efforts to build an innovative and successful service (Randhawa & Scerri 2015, 34-36; Wilson et al. 2012, 172). Edvardsson et al. (2002) stress the idea that companies should not assume what customers need and expect. Instead, efforts should be made to create channels by which customers can inform companies if a new service is desired or valuable, thereby involving both customers and employees in NSD.

The innovating process is often perceived as taxing and inefficient, especially by managers who are typically focused on internal, company-centric functions instead of creating suppositions about the experience of customers. However, customers and customer communities can be seen as design resources, and involving customers in NSD can provide many advantages. Enthusiastic actors are often willing to participate in NSD, and unique solutions can be created by including customers that are often neglected. Also, customers can help determine optimal strategies for communicating new services to other customers because they speak the same language (Edvardsson et al. 2002, 117).

Prahalad and Ramaswamy (2004, 142) explain that a customer-centric focus and customer involvement in the NSD process provides benefits like cost-reductions for design activities. Such benefits are realized by establishing a *dialog* with customers, granting *access* to product and service interfaces, and *transparency,* each of which empowers customers to co-shape their desired service (Prahalad & Ramaswamy 2004, 54-55). Additionally, if a company can engage energetic customers as early adopters of a product or service, these highly motivated individuals can prove to be a competitive advantage as other actors learn from their positive experiences. The border between a provider and a customer begins to blur and will blend further collaborative partnerships deepen their relationship. This level of customer involvement is also an example of the application of SD-L value co-creation within complex value networks.

Important role of employees in NSD

Although involving customers in NSD is the highest priority, it is also essential to include frontline employees who have a unique perspective on customer behaviour, needs, and expectations (Edvardsson et al. 2002, 97). Because they have such high levels of interactions with customers and are mostly likely to make an impression, frontline employees must adopt

and support the new value propositions. Seeking input from employees regarding their ideas and concerns not only increases buy-in, but may also prevent decision-makers from making poor design choices, such as cost-efficient fast tracks that may not support customer value co-creation (Randhawa & Scerri 2015, 34).

2.3 Futures thinking

In this section, basic futures thinking concepts - trends categories (*weak signals, trends, megatrends and wild cards*), *anticipation*, *forecasting*, *foresights* and *scenarios* - are introduced and discussed. The concepts are relevant when designing new service and business offerings that are both sustainable and future-oriented.

The future is inevitable, and futures research is driven by two primary principles: "You can't put off tomorrow" and "What you foresee is what you get" (Carleton et al. 2013, 14). One of the foundational concepts in futures thinking is that there is no single future to expect; *alternative futures* appear as well (Inayatullah 2008, 5-6; Kuosa 2012, 14). Thus, futurists tend to write and discuss *futures* using the plural form to imply and include alternatives. Futures studies is an approach intended to reveal possible, plausible, and probable futures, envisioning both the positives and the unthinkable, in order to move towards desirable outcomes and avoid unpleasant ones (Inayatullah 2008, 6; Kuosa 2012, 38-41; Van Alstyne 2010, 70-71).

Futures thinking relevance in business context for anticipation

Every actor leaves his or her own footprints, influencing surroundings and changing the status quo. Some changes are noticed by others, and unique interpretations lead to innovative responses and novel behaviours. However, sometimes people resist change and avoid reacting even logic and common sense would encourage otherwise. Hiltunen (2012, 59, 65-71) explains that, even though we are able to detect even minor reversals in our surroundings, one's particular focus and selective attention, personal motives, incorrect estimates, information overload, denial and underestimations may block the stimulus. In this way, opportunities or necessary corrective actions may go unnoticed, especially if the change is moving slowly. These tendencies are also evident in business and community contexts, and can result in missed opportunities, as well as overlooked changes and events with potentially fatal outcomes. Hiltunen (2012, 68) calls this trend group blindness. The alternative reaction and its potential advantages is described by van der Duin (2006, 14), "Knowing at early stage how society will change, how the needs of customers will change, and which new legislation can be expected will give organisations time to adjust to new challenges."

Weak signals, trends, megatrends and wild cards

These changes in the environment can form trends of different directions and speeds. Trends fall into different categories depending on the strength of their impact, the length of their existence, and how widespread their influence travels. Minor reversals are called *weak signals*, or *microtrends,* and although they may start as minor, they can often result in radical changes to the status quo (Kjaer 2014, 55; Kuosa 2012, 33; Rehn & Lindkvist 2013, 11). The perceived novelty of a weak signal varies with each observer; one individual may describe a weak signal as new while others may have already noticed it. Detecting a weak signal often causes emotional reactions and discussions because it is novel and different, and these reactions can be either positive or negative (Hiltunen 2012, 108). The ability to perceive weak signals from amongst the noise and information overload of typical surroundings can prove highly advantageous (Hiltunen 2012, 122).

Connections between weak signals can form and grow, creating new patterns and phenomena. This combination of weak signals is referred to as a *trend,* which begins to become obvious within society and impact daily life. Short-term fads – practices deemed "hip" or "cool" – are not deemed trends in futures thinking, even though they can be interpreted as weak signals if the phenomenon is fully understood (Kjaer 2014, 13-14; Rehn & Lindkvist 2013, 31-32). Hiltunen (2012, 96) explains that trends affect in different societal spheres: Social, Technological, Economic, Environment and Political (STEEP). If a trend or microtrend is not adopted by a majority, it will likely fade away in a relatively short timeframe. Alternatively, trends also have the potential to evolve into bigger ones.

When a trend continues to grow, merging with other trends and beginning to influence different geographical areas, this is referred to as a m*egatrend* (Hiltunen 2013, 42). Hiltunen (2012, 79) explains that megatrends define and influence the world, broadly influencing daily life and typically lasting for years.

Occasionally a trend can be an *unexpected event* that suddenly and effectively disrupt the status quo. Unexpected events are also called *wild cards* or *black swans* (Hiltunen 2012, 143-145; Kuosa 2012, 36). An unexpected event can be either desirable or unpleasant. Unexpected events are described as improbable; they appear rapidly, leaving little time to prepare, tend to have a major impact and often generate additional unexpected events. An awareness of futures thinking methods that help companies to *anticipate* and *forecast* future events, and using critical *what if?* thinking helps to prepare for such events (Kjaer 2014, 18).

Anticipation and forecasting to recognize alternative futures

Anticipation and forecasting can be used to avoid unpleasant futures or to recognize new opportunities (Hiltunen 2012, 129-130). Kuosa (2012, 19-20) explains that *anticipation* is related to expect something to happen. It is informal brain functional unconscious process that is related to human intuition. Understanding the current state, patterns, systemic relations and phenomena support intuition to anticipate events. Anticipation is like being a few steps ahead from evolution of wild cards. In futures thinking context, it's important to differentiate anticipation from prediction or prophecy which is detailed or exact pronouncement of future state (Hiltunen 2013, xii).

Forecasting, however, is a sense-making approach to understand what are the alternative futures (Kuosa 2012, 23-25). Kuosa explains that preciseness and accuracy are also related to forecasting. A forecast can be simultaneously very precise but inaccurate. Forecasting requires understanding both past events and present day to systematically model future scenarios of alternative futures.

Forecasting can be exploratory and normative (Kuosa 2012, 26-27). *Exploratory forecasting* research possible alternative futures. It is formal, analytical and reasoning approach to understand which alternative futures may come true – the good and the bad ones. *Normative forecasting* is often related to organisation's visions, values, aims and purpose. This vision-oriented forecasting approach requires exploratory forecasting actions in order to understand what are the possible alternative futures into pursuit of the desirable ones.

Seizing alternative futures with strategic foresights

Environmental scanning can be used to spot weak signals (Hiltunen 2012, 177). Hiltunen explains (2012, 103-104) that an optional approach to gather knowledge from present day and very near future is to collect and use existing trend data from Internet, or purchasing such data from trendspotting professional organizations.

Plausible new trends can be noticed early enough if reasoned patterns behind signals are revealed. Then, the prospective trends can be used in *scenario* creation to theorize possible, plausible, and probable futures (Kuosa 2012, 39-40). In the context of futures thinking, scenarios are narratives describing alternative future states based on interpretations of trend data analysis (Rehn & Lindkvist 2013, 31-32; Van Alstyne 2010, 70-71). Kjaer (2014, 76) stresses the importance of keeping realistic scenarios – more plausible situations - and idealistic scenarios – more wishful situations - separated. However, both scenarios are connected and necessary for creating a plan to achieve desired future states. Realistic

scenarios can be thought of as being related to exploratory forecasting, whereas idealistic scenarios are related to the concept of normative forecasting.

A proper narrative scenario is continuous and consistent, an engaging and unitary story. It should be credible, connected to meaningful context, and take all environmental complexities into account. The process of turning systematically interpreted past and present into a forecasted future scenario is also called *foresight* (Carleton, et al. 2013, 35; Kuosa 2012, 5). Kuosa (2012, 60) summarizes the foresight creation process in three different phases using three unique guiding questions: analysis (*what seems to be happening?*), interpretation (*what is really happening?*), and prospection (*how are things likely to go?*).

In the context of businesses and organizations, scenarios are necessary to make better strategic decisions, enabling a company to utilize foresight to achieve its mission and vision (van Alstyne 2010, 70-71). For futures studies, the concept of *alignment* concerns the application of a plausible future into daily actions (Inayatullah 2008, 6). The envisioned future must be aligned with, or projected onto, daily functions, similar to what is observed in the NSD process.

3 The chosen service innovation process, methods and adaption plans

In this chapter, the chosen innovation process model and methods are presented. An overview of the model is presented in the sections that follow. Initially, the model and its four key phases will be introduced and explored. Next, the adapted service and foresight design methods, as well as the accompanying methodologies are presented. Finally, the team's design challenges and the process for deciding on design actions are briefly summarized in tables. More detailed descriptions of the design challenges, planned actions, challenges and solutions, and descriptions of the design outcomes are discussed in Chapter 4.

3.1 The future-oriented service innovation process model

Ojasalo et al. (2015, 202) have studied over 20 different service innovation processes. As a result of their work, the authors have synthesized a new future-oriented service innovation process model that is strictly based on service design and foresight design fields. The origins of the fields are in recent service marketing logics, NSD, design thinking and futures thinking.

The service innovation process model was chosen for two reasons: the model is a novel synthesis of the broad service innovation related literature, and because the model combines the strengths of both foresight and service design (Ojasalo et al. 2015, 196, 202, 208). The

model has four fundamental phases: *map and understand*, *forecast and ideate*, *model and evaluate*, and *conceptualize and influence* (see Figure 4).

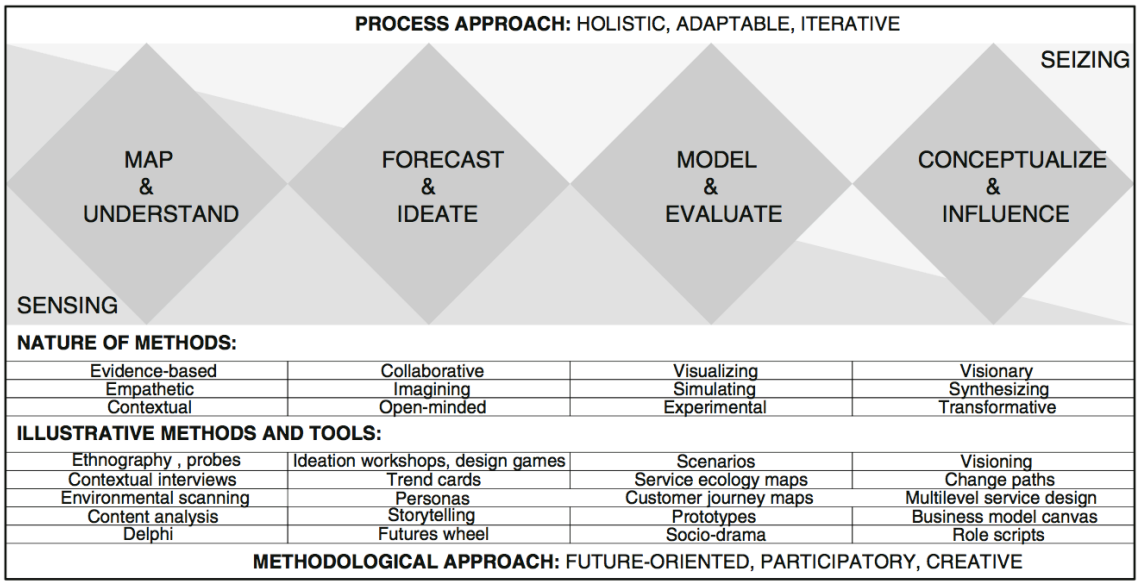


Figure 4: The future-oriented service innovation process model (Ojasalo et al. 2015, 202)

The initial phases of the innovation process model are more oriented towards gathering information using sensing approaches than the latter phases. In this model, sensing refers to utilizing different methods to systematically collect insights and signals from the chosen relevant context. These relevant contexts may include society at large, a particular company or business, or the customer's environment. The methods typically applied in the initial steps of the process tend to be *evidence-based, empathic, contextual, collaborative, imagining* and *open-minded* (see Figure 4).

The latter steps of the process are described as being more seizing-oriented. The forecasts and ideas created in the earlier stages are modelled into foresights and conceptualized in such a way that they will aid in making the desired impact. Thus, the objectives of the design tools in the latter phases include seizing the desirable alternative futures within the relevant context. The methods typically applied in the latter steps of the process tend to be *visualising, simulating, experimental, visionary, synthesizing* and *transformative* (see Figure 4).

However, for the present work, the proposed process model will not be applied as a strict or linear waterfall process. Instead, similar to design thinking, the innovation process model is comprehensive and meant to be applied iteratively, flexibly and creatively. The four phases (Ojasalo et al. 2015, 202-208), as well as the applied design methods are briefly presented next.

3.2 Phase 1: Map and Understand, and the methods

Ojasalo et al. (2015, 203) emphasize the importance of focusing the research on people during the first phase. Specifically, data collection should include utilizing several research methods to gather the expectations, needs and desires of various individuals - customers, consumers, users, front-line employees, stakeholders, families, etc. - in their typical environment in order to create empathy within the research team. Again, this reveals the necessity of including methods in the first phase that are *evidence-based*, *empathetic* and *contextual* (see Figure 4). Empathy helps a design team to understand the design context and can be achieved using ethnography to see the daily existence of others in new light (Rehn & Lindkvist 2013, 26-27). Collecting and analysing changes in the environment, whether it is yours or that of other individuals, can provide insight into trends and weak signals. The applied design methods are briefly presented in the following sections.

SWOT-analysis

The SWOT-analysis method helps companies create a shared understanding of the company's business state in four following dimensions: *strengths*, *weaknesses*, *opportunities* and *threats* (Curadale 2012, 91-92; Kumar 2013, 81; Ojasalo et al. 2014, 147-148). The SWOT-analysis is often used in strategic decision-making. Van der Duin and den Hartigh (2013, 336, 340) describe the SWOT-analysis as a tool used to gain perspective into company business actions when employed in futures studies. Kumar (2013, 81) explains that participating in a SWOT-analysis can enable an organization to gain a holistic overview from both inside and outside the company, which can also aid in assessing the company's position relative to competitors. Kjaer (2014, 103) describes the practice of using a *Trend SWOT-analysis* as a strategy to internally impact *strengths* and *weaknesses*, while keeping in mind that opportunities and threats are out of the company's direct control.

A SWOT-analysis is a collaborative method that can be completed fairly quickly and should be utilized early in the innovation process (Kumar 2013, 81). First, a basic goal and context is defined by asking the question: what do we want map out? Then, each participant – either individually or in groups – will focus on the company's strengths, weaknesses, opportunities and threats, often using questions provided by a facilitator to motivate and focus concentration on each of the given dimensions. Participants should record their thoughts and perceptions for use in the ensuing discussion. Next, participants share and explain their perceptions of the four SWOT-dimensions, clustering similar ideas together to create a visual representation that aligns with the four SWOT-dimensions. As the participants continue to collect insights and discover affinities between the insights, the next step is to create titles

for the emerging themes that reveal common denominators and latent phenomena. Finally, the themes are prioritized to optimize strategic intentions. Gray et al. (2010, 63, 214) suggest a process they call *dot voting* – a democratic approach for rapid decision-making in co-creative workshop sessions - to identify and determine business focus. . The SWOT-analysis creation process is illustrated in Figure 5.

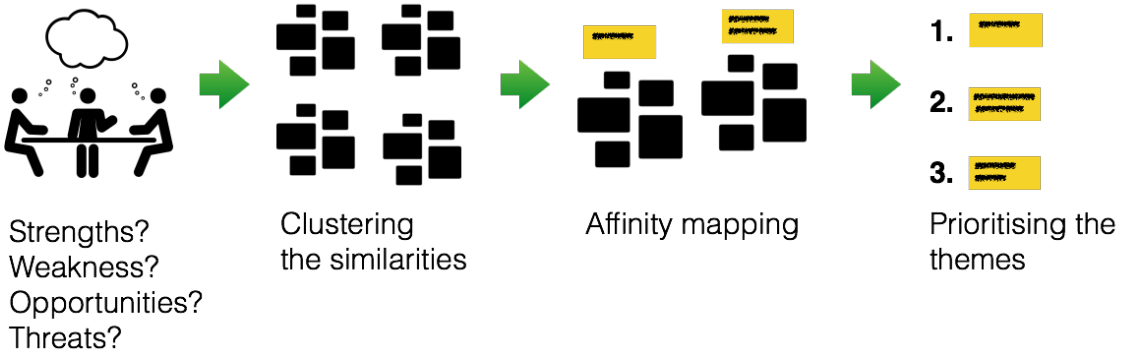


Figure 5: Visual summarization of the SWOT-analysis method

Analysis workshop and affinity diagramming

Several data collection methods make use of scrap paper, hand-written notes, post-its, etc., enabling session participants to record brief thoughts or insights that are then followed by a group sorting and interpretation activity. One such variation is described by Kumar (2013, 141-142) as an *analysis workshop,* a collaborative method that includes the following steps: invite participants, gather data, affix data to walls, cluster similar concepts, record interpretations, create titles for revealed patters and themes. Interpretations can later be used for identifying opportunities and problem-solving.

Sanders and Stappers (2013, 212-213) extol the benefits of first creating an informal data analysis by placing raw data on a wall as preparation for a more in-depth analysis stating "The real value in analyzing on the wall is that it can provide information and inspiration simultaneously". Additionally, they describe data interpretation as more efficient and enjoyable if done in small groups of participants.

Another concept to those discussed here is *affinity diagramming,* described by Martin and Hanington (2012, 12-13) "[…] affinity diagramming is an *inductive* exercise – which means that instead of grouping notes in predefined categories, the work is done bottom up, by first clustering specific, small details into groups, which then give rise to the general and overarching themes" (Martin and Hanington 2012, 12). Figure 6 provides an illustrated summary of this particular sense-making process.

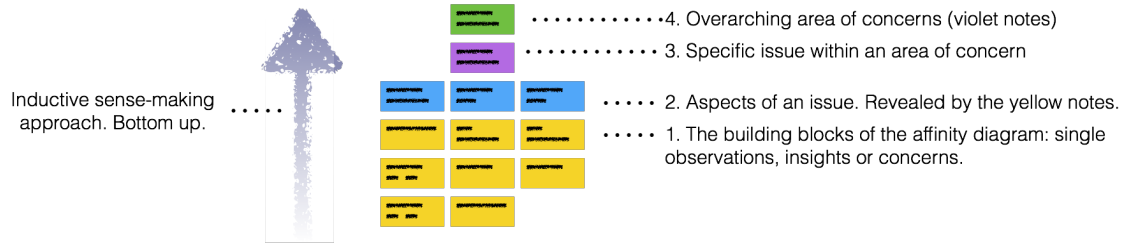


Figure 6: Data sense-making inductive process (modified from Martin & Hanington 2012, 13)

An example of practical insight interpretation using the affinity diagramming method is shown in Figure 7.

Figure 7: Example of affinity diagramming from a sense-making forecasting workshop

Targeting core priorities

Campbell and Liteman (2003, 204-205) describe a collaborative decision-making workshop method, which can be used to empower the participants to find a shared and prioritised consensus of strategic focuses by creating a visualization of the relationships between items of greatest relevance and importance.

A facilitator prepares for the session by drawing three concentric rings on whiteboard or flipchart. The concentric rings resemble a bulls-eye target and emphasize the objective of the task by providing a strong analogy for targeting the company's success (Campbell & Liteman 2003, 204; Gray et al. 2010, 36). Items that the participants should incorporate into the prioritization process are written on individual sticky-notes, and randomly placed on a nearby wall so that it is convenient for the participants to read, move, and discuss the items. Before beginning, the participants should establish a shared prioritisation criteria by asking the following questions: *What is our strategic purpose? Where can we make the biggest difference with our resources? What must we do that no one else can do? What can we give up to make the greatest impact in our core areas?* (Campbell & Liteman 2003, 204-205). Each participant chooses only one sticky-note, placing it in the set of circles such that items that are closes to the core of the bulls-eye are those that the participant perceives as more important for the company. Inevitably, disagreements will arise between the participants. Silent negotiations ensue, made by individuals moving one sticky-note per turn which can include the replacement of a previously used sticky-note with a new one. The group continues the silent prioritisation and negotiations until everyone agrees with the priorities. If, at any time, the participants face an impasse, the facilitator should conclude the activity. Eventually the participants will take part in a final discussion focused on why they moved the items they did and the challenges that arose. This debrief process is necessary to gain a shared perception of strategic priorities. The method is illustrated in Figure 8.

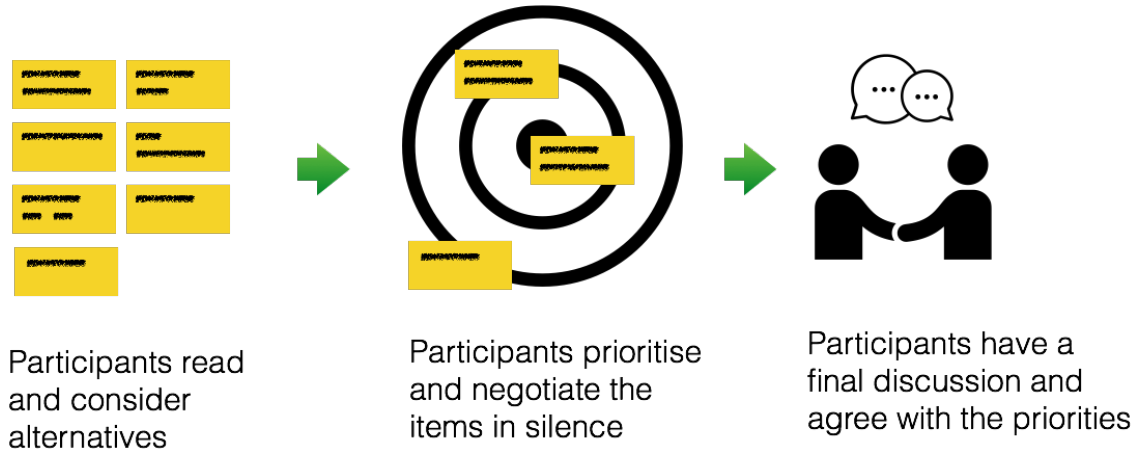


Figure 8: Visual summarization of the targeting core priorities method

Mind mapping

Mind *mapping* is a visual method used to organise complex information into a sense-making tree model with bigger and smaller "branches" representing concept relationships, which is then interpreted into meaningful categores (Martin & Hanington 2010, 118-119; Moritz 2005, 205; Sanders & Stappers 2013, 139). The mind map creation begins with a single identified

core concept, which is supplemented with branches and sub-branches. The categories are structured and connected into a non-linear format that supports navigation in data visualisation. A mind map both captures a holistic overview of systems and provides visual bridges for meaningful evaluation of individual entities. An example of a mind map is shown Figure 9.

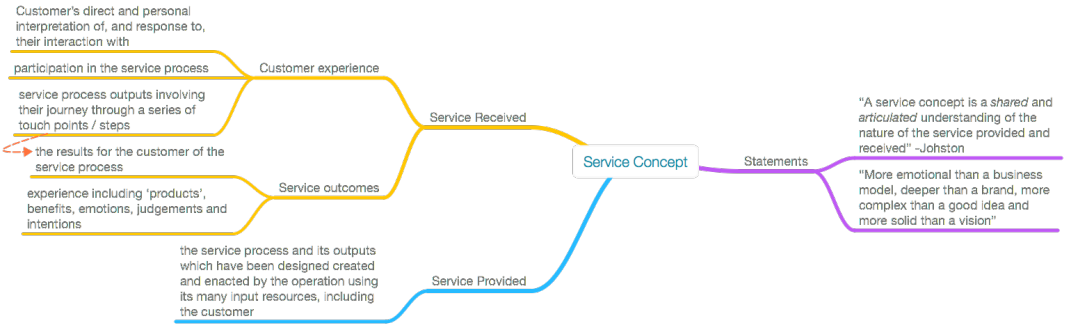


Figure 9: Example of a mind map with systemic branches

Trend cards

One foresight design method utilized in the present study is that of *trend cards*, created from different insights and themes during innovation process (Liedtka et al. 2013, 27). Cards are useful in different design planning phases, as creating different card combinations from several themes and contexts can be used to engage and inspire participants.

Raymond (2010, 58-63) introduces the concept of a *trend cartogram* method used by futurists to map complex trend data in both visual and textual format. The method requires the collection of evidence and insights from the environment, as well as the involvement of relevant experts. A trend cartogram includes representations for the different dimensions of a trend: innovators, impact, drivers, consequences, and futures. *Trend innovators* comprise profiles of individuals behind a trend *who* are driving the change. *Trend impact* describes *where* the trend is currently influencing society. *Trend drivers* clarify *why* a trend appears. Short- and long-term descriptions portray *trend consequences* associated with the timeframe – or *when* – of trend impacts. *Trend futures* illustrate long-term future implications in culture, society, industry, etc. Moreover, each trend should be accompanied by a short *name* and *description* to identify and briefly encapsulate *what* is happening.

Kjaer (2014, 74-75) also describes the benefits of trend mapping and visualisation as well, presenting the *trend atlas* tool which can be used to map trends with multiple dimensions, thereby enabling holistic thinking across dimensions and simplifying complex data navigation.

The method uses an approach similar to trend cards, improving the ease with which data can be visually evaluated.

Forecasting methods such as the *trend cartogram* and *trend atlas* help to reveal latent relationships between disparate trends. Visual mapping methods facilitate making sense of patterns behind phenomena, and can be used to forecast and in foresight design.

An example of a *trend card* is shown in Figure 10. The card provides illustrations and summarizes key information for a specific trend, using both visual and textual format.

Figure 10: Example of a trend card

A brief overview of the adaption plan for the present work is presented in Table 3.

Team's phase challenge	**Planned actions, methods and tools to solve the challenges**
To understand current the state of Samlink's business To create simultaneously new knowledge for the managers to support company vision and decision making	A facilitated participatory workshop with Samlink's top managers (series of actions: SWOT-analysis, affinity mapping, bull's eye prioritization, mind mapping, video) Natures of methods: *collaborative, evidence-based, content analysis, contextual, empathetic*
To understand external world phenomena	1. Fujitsu Finland provides a fresh and broad asset of trend cards from market, finance and technology themes. 2. Trends are reviewed individually to make subjective understanding Natures of methods: *evidence-based, contextual, open minded*

Table 3: The adaption plan for the Map and Understand phase

3.3 Phase 2: Forecast and Ideate, and the methods

Ojasalo et al. (2015, 204) explain that the mapped, collected and interpreted insights are then used to forecast alternative futures during the *forecast and ideate* phase. The alternative futures can be realistic and evolve into idealistic as discussed in Section 2.3. The phase requires inspiration, both systematic and lateral thinking, collaboration and actor involvement. As seen in Figure 4, the natures of the methods are described as *collaborative*, *imagining* and *open-minded*.

Context mapping

Carleton et al. (2013 18, 61) suggest context maps as an excellent tool for collaborative sense-making, exploring alternative opportunities, and brainstorming. By exploring the dimensions of a context, the method enables both the revelation and synthesis of complex relationships. The authors explain that the method also aids in organising a big picture view of various themes and topics using an inside-out approach.

The participants select topics to discuss and explore. A diagram that resembles a flower with eight petals is drawn on a large flipchart. The centre of the flower is labelled with the chosen topic and the petals represent eight dimensions. The facilitator's role is to encourage discussion, note relevant topics that arise during discussion, and record them within the context map. The discussion may go through several iterations if the explored topic is broad. Eventually, the participants will have produced the most relevant themes connected to a problem or idea. Lessons learned are discussed and summarized during a debriefing. The context mapping process is illustrated in Figure 11.

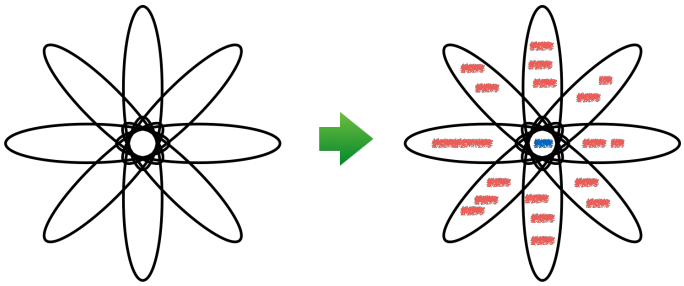


Figure 11: Visual summarization of the context mapping method

Synthesis workshop

Kumar (2013, 281) presents a *synthesis workshop* is a short and intensive collaborative session to create systematic solutions rapidly. The workshop is a modification of brainstorming session. However, the *synthesis workshop* is more structured and aims to generate solutions for user needs. The session applies *divergent thinking* (Curedale 2012, 312) to create opportunities, includes exploration part to systematically find plausible solutions, and *convergent thinking* (Curedale 2012, 310) to evaluate and to synthesise prospects into a few most promising alternative working models. Kumar have split the session in seven phases. Firstly, workshop, time-boxes and rules are required to plan with clear goal statement. Secondly, all collected relevant insights and knowledge pieces are shared for session participants. Thirdly, a setup of creative and inspiring workshop premises are arranged and prepared. Basic visual communication tools like stick-notes, markers, draft papers are shared. Fourthly, the participants start to review and explore existing insights and materials to create a shared understanding of background and challenge of the context. Participants generate ideas and concepts by getting inspired with the provided insights. Fifthly, all generated concept are reviewed and evaluated with critical eyes. The concepts are reflected into evaluation criteria. Short-term, mid-term and long-term solutions should be recognized. Sixthly, similar and closely overlapping concepts are combined into optimal systemic models or solutions. Brief notes are written down. "Use worksheets for filling in: evocate title, solution description, concept sketch/diagram, user value, provider value, strategy supported, capabilities needed, partnering needed, associated risks, and other useful tags" (Kumar 2013,

282). Seventhly, modelled prospects are discussed how to continue modelling and prototyping as iterative service concept development process.

Growth types of innovations

Carleton et al. (2013, 36) present a framework for illustrating the various growth types that may originate during the innovation process: core growth, new growth and emerging growth. *Core growth* innovation provides quick wins in a company's existing activities and business actions. *New growth* innovation seeks growth in two ways: creating new business activities, or exploring new business fields with existing offerings, a path described by Carleton et al., (2013, 36) as "focus[ed] on mid-term opportunities". *Emerging growth* innovation is that which seeks long-term growth. Such innovations tend to disrupt and transform existing or new markets with novel service offerings and are sometimes described as radical innovations. The growth types and accompanying descriptions are illustrated in Figure 12.

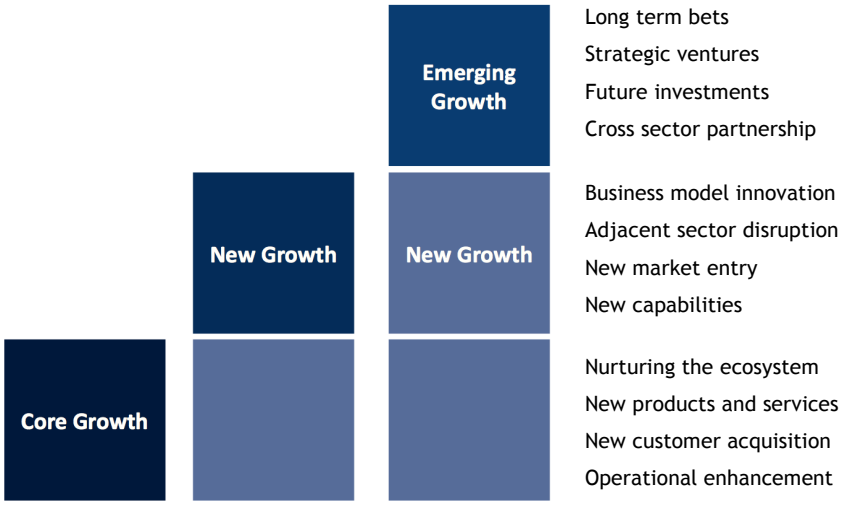


Figure 12: Growth type descriptions (reproduced from Carleton et al. 2013, 37)

A brief overview of the adaption plan for the present work is presented in Table 4.

Team's phase challenge	**Planned actions, methods and tools to solve the challenges**
To forecast realistic alternative futures and paths	A forecast and synthesis workshop with the innovation team: Trend review, exploratory forecast, scenario building Natures of methods: *collaborative, open-minded, imagining, evidence-based, simulating*
To choose the realistic and idealistic alternative forecasts	Plausible business growth impact mapping. Prioritisation of the most desirable ones Natures of methods: *collaborative, synthesizing, imagining*

Table 4: The adaption plan for the Forecast and Ideate phase

3.4 Phase 3: Model and Evaluate, and the methods

The third phase - *model and evaluate* - moves the process towards *seizing* the forecasted alternative futures (Ojasalo et al. 2015, 205). The objective of this phase is to model the alternative futures using greater detail in order to compare the path choices. Establishing a realistic experience is required to identify with the alternative futures; the visions must be supplemented with substance. Therefore, the methods used in this phase are described as *visualising*, *simulating* and *experimental* (see Figure 4). The creation of both passive models of futures and interactive low-level rapid prototypes can stimulate individuals provide qualitative feedback. This feedback and validation guides decision-making towards a future path that will include progress and improvement. Ojasalo et al. (2015, 205-206) stress that the foresights chosen for evaluation should be *feasible*, *viable* and *desirable* if they are to succeed.

Poster

Illustrations are powerful tools in communication, capable of explaining existing and future states, as well as communicating both the *service system* (actors and connections) and the *service process* (events and steps) (Gray et al. 2010, 114-116; Liedtka et al. 2013, 42. Markers, flipcharts, and images can be used to create large, highly visual, advertisement-style idea *posters* that are easy to visually evaluate and simplify understanding of the proposed values. According to Gray et al. (2010, 114), "The act of creating a poster forces experts and

otherwise passionate people to stop and think about the best way to communicate the core concepts of their material, avoiding the popular and default 'show up and throw up'". Participants must overcome the temptation to clutter a *poster* with irrelevant content, instead working to keep it simple and coherent. An example of a *poster* is shown in Figure 13.

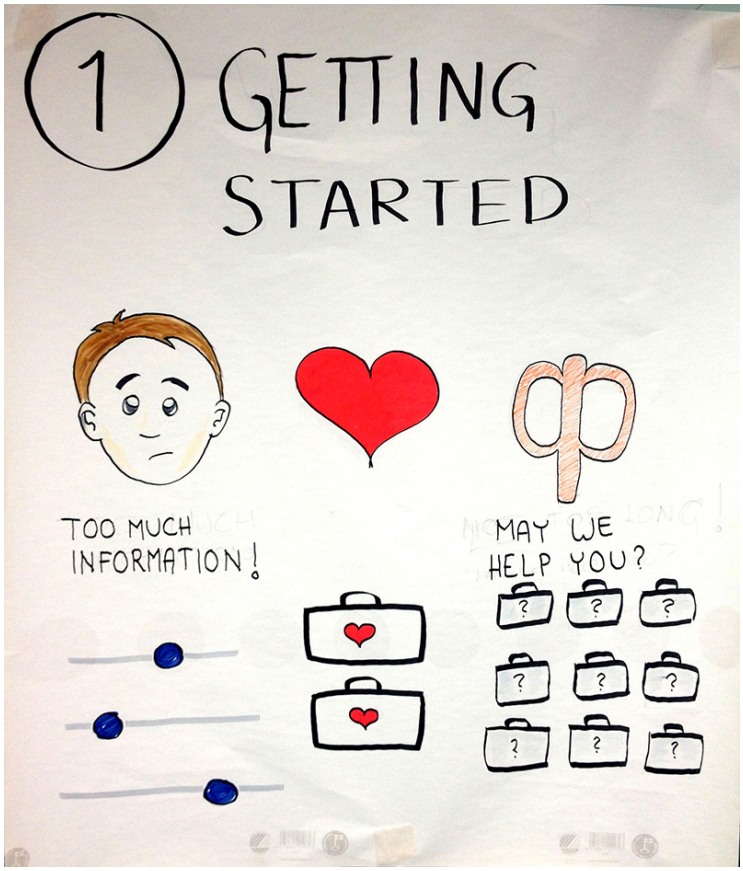


Figure 13: Example of a poster that visualises present day and future state

Rapid freehand sketching is highly recommended to support idea exploration, can be used to support iterative *poster* creation and modelling processes, and requires no actual drawing skills (Kimbell 2014, 147; Kumar 2013, 237). Kumar (2013, 237) and Curedale (2013, 302) explain that sketches and drafts support idea generation by quickly transforming initial ideas into tangible objects, thereby facilitating communication, idea comparison and evaluation, which are supplemented with more details through an iterative sketch generation process.

Stakeholder maps

The *stakeholder map* method – created by the design team to indicate all research and design-context stakeholders - encapsulates relationships between different actors to gain an overview of the service system and ecosystems (Martin & Hanington 2012, 166-167; Stickdorn & Schneider 2013, 150-153). Visualizing the connections between actors aids in

communication and understanding the complex relationships of individuals, or even larger units, such as communities. This tool also enables key challenges and opportunities in relationships to be pinpointed for greater focus. Martin and Hanington (2012, 166) explain that "[…]*stakeholder maps* can take on a variety of forms, casual or formal, with a mix of text, photos and graphics."

There are also multiple variations of the method (Martin & Hanington 2012; Stickdorn & Schneider 2013), including the *Descriptive Value Web* that is intended to illustrate value co-creation among stakeholders in complex service systems (Kumar 2013, 151). Another variation is the *mapping innovation ecosystems*, presented by Kimbell (2014, 59-62) as a method used to describe the current state of service system or to define future alternatives. Kimbell takes broader approach with the method by including *people, things and technologies, organizations, roles actors play*, and *needs and capacities* in the mapping process.

Creating a future-oriented *stakeholder map* requires curiosity, specifically a *what if* mindset for envisioning future service ecosystems Kimbell (2014). Key actors are identified and arranged on a canvas, and then relationships and flows - such as money, data and interaction - between the stakeholders are sketched in. Also included are explanatory annotations, which are written and drawn over the canvas as appropriate (see Figure 14).

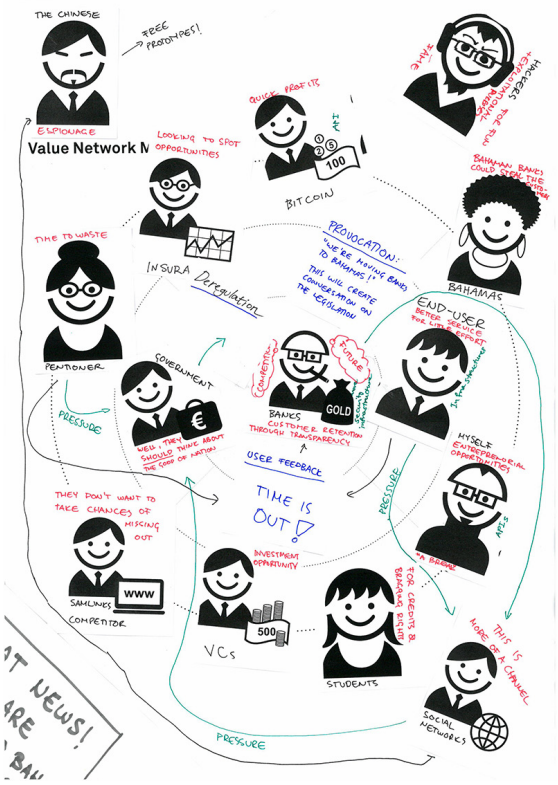


Figure 14: Example of a stakeholder map

Narrative stories, storytelling and envisioned future scenarios

Future-oriented *narrative stories*, *storytelling* and *envisioning scenarios* have also been described as efficient idea communication and organising mindsets (Kimbell 2014, 150; Kumar 2013, 201, 252). *Specifically, narrative stories* can be told briefly, sometimes demonstrating *envisioned future scenarios* in a way that allows listeners to relate ideas more closely into the context (Kumar 2013, 201; Stickdorn & Schneider 2013, 202). According to Kumar (2013, 252), "*Envisioning* the future is often most effectively imagined through visualizations expressed in diagrams, comic strips, animations, videos, slide stacks, and similar media," methods which support communication utilizing a variety of media options with different audiences and decision-makers to explain why envisioned solutions would work. Kjaer (2014, 169-170) describes foresight scenario creation as a process used to bind concepts into narratives, storytelling, written and visual synopsis, underscoring the idea that the chosen storytelling format should be imaginative and memorable. Kimbell (2014, 150-151) also promotes the use of *comic strips*, *short stories* and *role-plays* as future-oriented storytelling methods.

Cartoon strip as a solution storyboard

The *storyboard,* or *solution storyboard,* is a sequencing future-oriented visualizing method whose final design deliverable can be a *cartoon strip* (Gray et al. 2010, 71-73; Kumar 2013, 269; Stickdorn 2013, 186-189). Kumar (2013) explains that a *solution storyboard* require envisioned *characters*, *actions* and a *plot* to communicate potential future scenarios that include the actor's perceived service experience. Solution storyboards humanize solution systems and frameworks, and, according to Kumar (2013, 269), "That is why stories can connect with audiences on emotional and experiential levels in a way that diagrams or charts simply cannot."

Kumar (2013, 269) describes five steps within the *solution storyboard* creation process. First, a preliminary service concept must be closely examined: how would it solve a problem or be beneficial? Next, characters are created to represent key actors in a service system. Empathising with these characters supports the experience design within the preliminary service concept as the reader shares their journeys. User journeys are then mapped into envisioned scenarios in which service encounter touchpoints are defined to highlight how service would support gains by the user. Kumar (2013) also suggests writing short descriptions of events and interactions adjacent to each touchpoint because dramatized events support audience engagement so long as they are also realistic. In the next step, solution storyboards are created by sketching frames, adding detail through an iterative process. Finally, the solution storyboards are reviewed and shared in an effort to collect feedback for improving the preliminary service concept. Kumar (2013, 245) suggests creating a *concept catalog* for

collecting and organizing service concepts, as well as simplifying the review and revision processes. In the context of a cartoon strip, a comic book can be thought of as an analogy for a *concept catalog*. An example of a cartoon strip style service solution storyboard is shown in Figure 15.

Figure 15: Example of a cartoon strip as a solution storyboard

A brief overview of the adaption plan for the present work is presented in Table 5.

Team's phase challenges	**Planned actions, methods and tools to solve the challenges**
To pare down the forecasts into foresights and idealistic scenarios To have a holistic overview of service system To identify key actors in service system (customers, users, employees) To identify value propositions of each key actor To understand how different actors co-create value together in service system To define service concept (service provided & received) To identify the potential financial benefit	To illustrate service posters with stakeholder map method Natures of methods: *visualizing, simulating*
To gain empathy for actors To explain actors' needs, gains To communicate the desired service experience To explain customer journey (before, during and after the service encounter) To map service touchpoints To imagine servicescape To collect feedback to improve To evaluate concepts	To create and share strip cartoons (scenarios, manuscripting, storyboarding, casting, staging, photoshooting, illustrating, imposing, mobile QR-tags) Natures of methods: *visualizing, visionary, simulating*

Table 5: The adaption plan for the Model and Evaluate phase

3.5 Phase 4: Conceptualize and Influence, and the methods

The foresights deemed most desirable are seized during the last step, the *conceptualize and influence* phase. All design activities are intended to realize and transform the chosen and modelled foresights into reality (Ojasalo et al. 2015, 207-208). The nature of the methods are described as *visionary*, *synthesizing* and *transformative* (see Figure 4).

Socio-drama and role-plays as experience prototypes

There is a popular learning adage by Confucius (Michlewski 2010, 275) that states "Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand." . Building off of this concept, *socio-drama* and its numerous variations are embodiments of

narrative storytelling methods that aid designers and decision-makers in empathising with future service users through acting. Stickdorn and Schneider (2013, 192) refer to such storytelling methods as service prototypes that seek to explore perceived simulated experiences using interaction with other actors and items in service systems. Blomkvist (2014, 16) describes role-play as an *ongoing prototype* that "[…] is dynamic and does not have static state.". Capturing such service experience prototypes with a video camera is strongly recommended for later analysis and communication (Kumar 2013, 233; Martin & Hanington 2012, 148; Stickdorn & Schneider 2013, 208-209).

Service roleplay can be used to explore strategies for meeting customer expectations in a service encounter (Stickdorn & Schneider 2013, 208). Such ongoing prototypes can be rapidly adapted if issues arise within the service experiences, process or outcomes. Stickdorn and Schneider (2013, 192) describe the nature of service prototyping as *learning by doing*, which can be transformed into more realistic scenarios using *service staging* method to simulate future servicescapes, similar to a set in a play (Stickdorn & Schneider 2013, 194).

The foundation for a *role-play* prototyping session is established by "[…] describing a general situation or suggestions for actions to be performed, tasks to be accomplished, or goals to reached" (Martin & Hanington 2012, 148). Kumar (2013, 233) proposes five elements necessary for creating a *behavioural prototype*. First, a specific situation or encounter is identified from the design case context and selected for simulation. Then, a physical or virtual servicescape is prepared and staged to support prototyping. Next, participants are included in the simulation and provided with direction to guide their interactions. After that, the participants enact the scenario, improvising when needed. At the same time, the audience is instructed to focus on the ongoing service prototype, observe actors' behaviours and emotions, make notes, record video and pinpoint improvement proposals. Stickdorn and Schneider (2013, 192) also suggest incorporating a *director* whose role is to observe and propose changes when required. Finally, notes and videos are reviewed and analysed so that the user journeys are improved and role-playing can be applied again when needed.

Figure 16 shows an example of a role-played experience prototype. Scanning the accompanying QR code with a mobile device will open an example video, which can also be viewed by vising the website http://bit.ly/kyto-role-play-example.

Figure 16: Example of a role-played service experience prototype (see video at http://bit.ly/kyto-role-play-example)

Improvisation

Gray et al. (2010, 49-51) describes that improvisation is strongly related to intuition, spontaneity, and interaction with other people. People tend to improvise when faced with unexpected events that occur too quickly to prepare an action plan. The authors explain that improvisation is a survival mechanisms and often appears in music and theatre to build various scenarios. The authors summarize improvisation as follows:

> "For knowledge explores, improvisation is important in both ways – the ability to quickly respond to unanticipated or emergency situations as well as to develop spontaneous compositions around a baseline rhythm or structure" (Gray et al. 2010, 49).

They stress that, in an innovation workshop context, improvisation is capable of highlighting perceived experiences as a result of the actions taken. However, in order for improvisation to be a valuable method in making sense of and exploring future paths, a highly defined

innovation context is necessary. Specifically, there are four required elements of a scene: the setting, the characters, the characters' objectives, and props. Improvised scenarios should be recorded so that the human actions, activities, specific moments, and experiences are captured, as these elements produce the value of this method, as opposed to activity outcomes.

Design the box method

Gray et al. (2010, 161-163) present and describe a collaborative workshop method called *design the box,* which is intended to transform intangible service concepts into something of a tangible nature. Stakeholders often find it easier to capture the most relevant attributes and narrow down the most important aspects of a service when presented with tangible prototypes. The method is highly vision-oriented.

For this activity, the stakeholder's task is to illustrate a service concept using a cardboard product box. The stakeholders uses materials such as markers, glue, stickers and other creative devices to support their efforts. The method is divided into three steps: *fill the box, make the box* and *sell the box.* In order to *fill the box,* the team discusses and selects an imaginary customer or user of the service, then they name the service concept and identify other relevant attributes. Next, during *the make the box* step, the participants devise ways to craft the box in order to make it appealing. Questions that might guide this step include: "*What's it called? Who's it for? What's it for? What's its tagline or slogan? What are its most compelling features? Benefits? What would make it stand out to you?*" (Gray et al. 2010, 162). Finally, the stakeholders present their boxes and decisions to each other during the *sell the box* phase, pitching their value propositions and stating why and how the service or product would be beneficial.

The pitch and elevator pitch methods

An elevator pitch is typically described as a sales speech traditionally used by managers to briefly explain ideas when in an elevator moving between floors (Gray et al. 2010, 166-169). The method forces participants to contemplate and crystalize the service concept from different perspectives into a brief but compelling speech. Participants considers questions such as: *who is the customer or user? What is the customer's need or problem? How the service or product concept would benefit customer? What is company value?* According to Gray et al. (2010, 193), "Preparing a pitch to a venture capitalist obliges participants to focus on the really important ideas and the time limit helps them to concentrate on the core of the proposition." Kjaer (2014, 169-170) refers to the power of combining narrative storified scenerios and idea or concept pitching.

A brief overview of the adaption plan for the present work is presented in Table 6.

Team's phase challenges	**Planned actions, methods and tools to solve the challenges**
To involve cooperative's employees To fit new services and products in cooperatives service seamlessly To empathise with users and customers in new service concepts To test ideas and to collect feedback To experience the hyperreal service experience (physical artefacts, intangible artefacts, technology, customer placement and customer involvement) To imagine servicescape	Partly improvised and role-played service scenario Natures of methods: *transformative, visionary, simulating, synthesizing, experimental, collaborative, visualizing*
To explain ideas for cooperatives To evaluate concepts with cooperatives To collect feedback to improve concepts To raise discussion and choose most desirable future(s) collaboratively To test and sense if cooperatives perceive concepts desirable, feasible and viable To engage cooperatives	To pitch service posters for the cooperatives Natures of methods: *visualizing, synthesizing, collaborative*
To involve cooperative's employees To identify realistic customers To find value propositions in cooperatives service ecosystems To fit new service concept in cooperatives service system	To organize a collaborative and involving *Design the box* workshop Natures of methods: *collaborative, simulating, synthesizing, transformative, visionary, visualizing*

Table 6: Design challenges and the adaption plan for the Conceptualize and Influence phase

3.6 Guiding questions to the future-oriented service innovation process model

The future-oriented service innovation process model can be developed by providing guiding questions such as those shown in Figure 17 for hands-on approaches to service innovation. The proposed guiding questions are intended to explain the four phases of the innovation process model. The basis for the questions was influenced by synthesizing literature reviewed for this thesis.

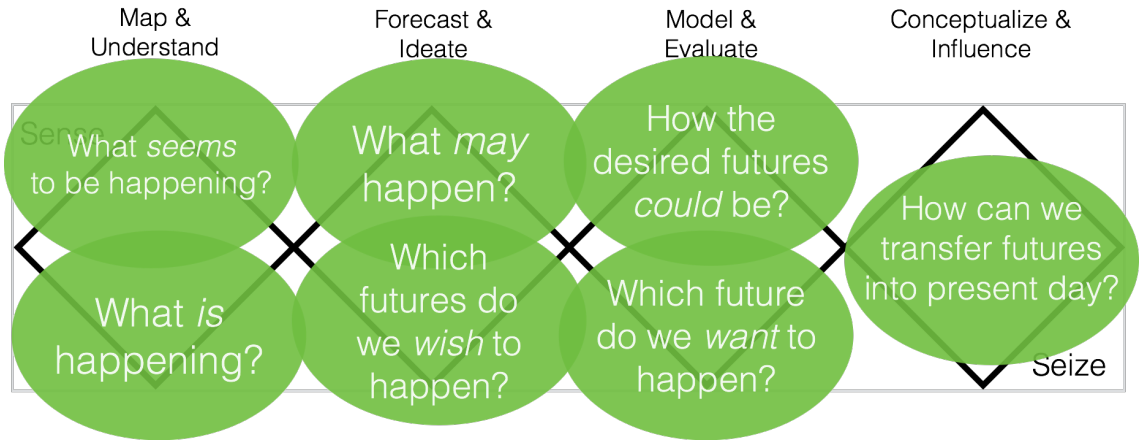


Figure 17: Proposals as guiding questions for easy-access into service innovation

Furthermore, if *guiding design challenge questions* are written for each of the proposed service and foresight design method, this will empower inexperienced innovators *to pick the right method that provides right answers in right time during the service innovation process*. Heinonen et al. (2013, 115) provides customer-dominant challenge questions (see Table 8) intended to result in a deeper understanding of the customer's world. The C-DL questions could be applied to the innovation process model for effective customer- and human-centric research. One example of addressing the questions to methods of the innovation process model is presented in Table 7.

Guiding questions	**Service and foresights design method**
How do the customers live their life? What are the internal and external living contexts of the customers?	Ethnography, probes

Table 7: Proposal to address the customer-dominant challenge questions with the innovation process model (modified from Heinonen et al. 2013, 115 and Ojasalo et al. 2015, 202)

4 Empirical study: the joint venture innovation experiment 2014-2015

This chapter describes how the discussed theory, the chosen service innovation process model, foresight and service design methods were applied during the joint venture innovation experiment to reach the objectives. Figure 18 illustrates an overview of the applied service and foresight design actions within the four phases of the service innovation process model.

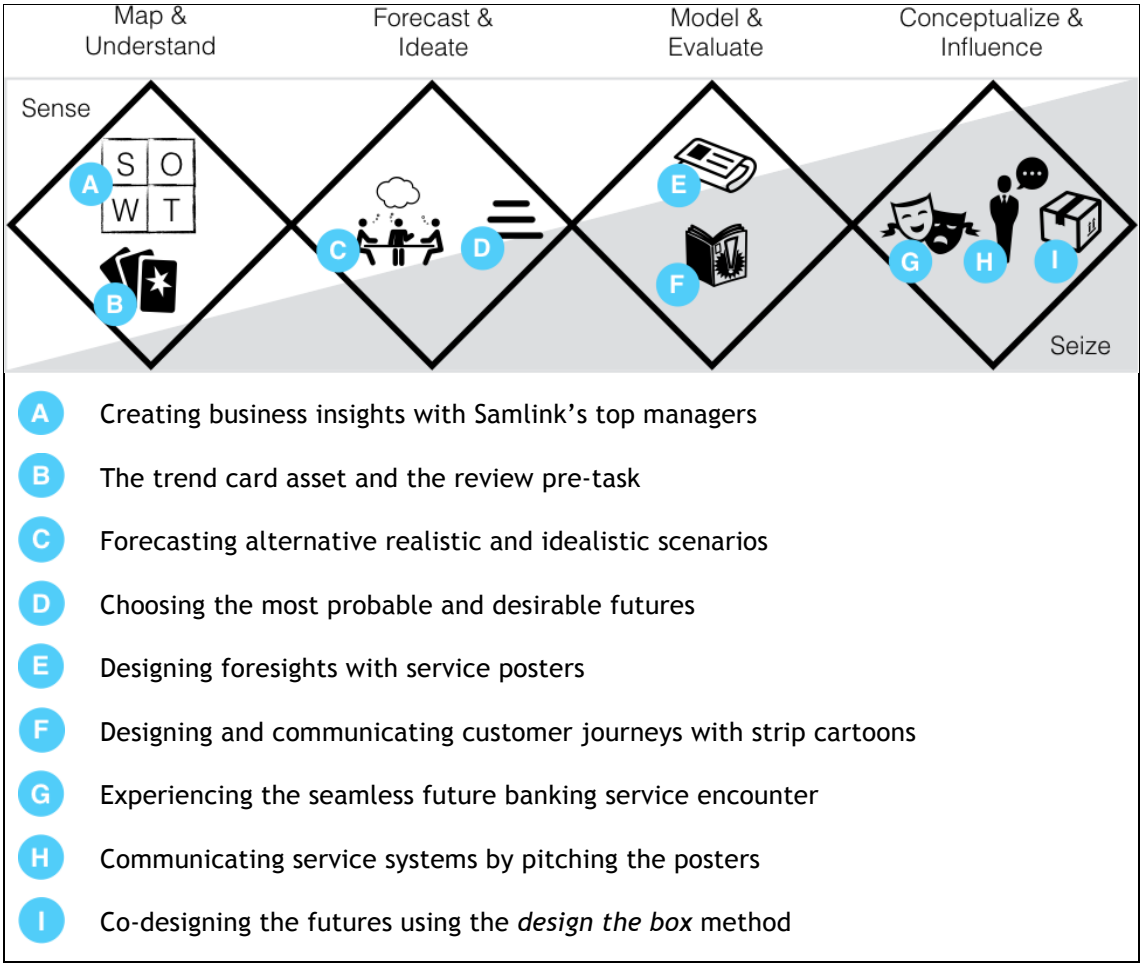


Figure 18: Overview of the applied design actions in joint venture innovation experiment

Detailed descriptions of the challenges encountered within each phase, as well as how the tools and methods were used to discover solutions to the design challenges, are described in following chapters. Additionally, outcomes of each design actions are described, visualized, and tied to the attainment of the research objectives.

The joint venture team represented a diverse collection of expertise:

- Enterprise Architect (Samlink)
- Head of Architecture (Samlink)
- Service Designer (Samlink, the author of this thesis)
- CTO and Head of New Business Development (Fujitsu Finland)
- Director, Competitive Intelligence (Fujitsu Finland)
- Head of Marketing and Solutions (Fujitsu Finland)
- Director (Fujitsu Finland)

None of the team members was assigned to full-time implementation of the experiment. Additional specialists, such as Chief Architects and Service Development Managers, were involved when their specific expertise was needed.

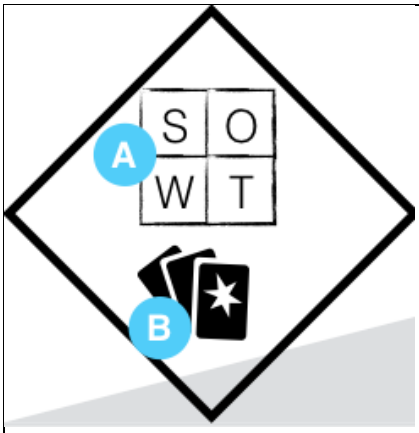
The joint venture innovation experiment officially began March 3rd, 2014 and concluded March 27th, 2015. Key milestones, as well as their dates and the participants involved, can be reviewed in Appendix 1.

Kick-off meeting

A kick-off meeting was held to involve diverse professionals and introduce the joint venture innovation experiment. The session began with an introduction of historical and present day situations, as well as a few plausible futures' scenarios, in order to provide relevant background. The topics discussed were related to key milestones within the financial field from 1939 to the present day, such as the impact of technology on customer behaviour and the process by which game-changers enter the financial field to challenge the traditionally strictly regulated finance business. This historic knowledge was used to provide hindsight for the team. Next, the origins, history, present day and vision of Samlink were presented in an effort to orient the team to the current state of affairs. A company slideshow was shown to the team, and some specific on-going projects were described to avoid redundancy.

4.1 Mapping and understanding the environment

The purpose of the first phase of data collection was to reveal *what seems to be happening* and *what is happening*. These insights were gathered using Samlink's business context and the external environment, as shown in Figure 19.



A Creating business insights with Samlink's top managers

B The trend card asset and the review pre-task

Figure 19: Actions in Map and Understand phase

4.1.1 Creating business insights with Samlink's top managers

A co-creative workshop with Samlink's top managers was arranged in an effort to understand the current the state of Samlink's business. The top managers were the ideal stakeholders for provide insights to the design team because they possess an awareness of the company's current pulse, vision, strategy and mission. The managers involved in the workshop were the Executive Vice President & Head of Customers and Service Development, the Head of Solutions Business, and the Head of Resourcing and Process Development.

An additional purpose of the workshop was the creation of new knowledge for the managers, intended to support decision-making. The collaborative and co-creative knowledge production workshop was implemented using the following series of actions:

- *Revealing latent strengths and weaknesses, opportunities and threats*
- *Analysing the content in themes with the affinity mapping method*
- *Creating the strategic focus*
- *Documenting and creating outcome deliverables*

The applied workshop process is next discussed, but, due to the sensitive nature of the information, some outcomes are omitted or censored.

Revealing strengths and weaknesses, opportunities and threats together

The top managers began by individually recording their perceptions of Samlink's strengths and weaknesses colour-coded sticky-notes. Then, the participants presented their insights to one

another, collected the sticky-notes on a wall, and joint interpretations of the data were formed through a short discussion. A total of 25 strengths and weaknesses were collected. Next, the individual recording process was applied to a consideration of futures' opportunities and threats, as well as external threats and opportunities. A total of 20 opportunities and threats were collected. This way, a SWOT-analysis was completed using the perspectives of the top management. The results were documented with a still camera.

Mapping the content in affinities and themes

Next, a content analysis task was used in an effort to reveal the patterns and phenomena behind the SWOT interpretations. The top managers' next task was to conduct an in-depth evaluation of the SWOT analysis by discussing, sorting, and combining the strengths, weaknesses, opportunities and threats recorded on sticky-notes into meaningful themes using the affinity mapping method. Seven different themes were created using this process. Finally, the top managers were asked to identify and name the themes that emerged during the analysis, see Figure 20.

Figure 20: Analysed themes with common denominators (censored)

Creating the strategic focus with bull's eye prioritization

The next objective was to find a strategic focus for the themed insights identified as most important. Again the team of top managers was utilized, and were tasked with prioritizing most revealed patterns and themes in terms of importance. The initial plan was to allow the top managers to decide the prioritization criteria. However, due to time constraints that arose during the workshop, the following prioritization criteria were given: *Where should*

Samlink focus future business? What solutions are the joint innovation team capable of enacting?

Three concentric circles were drawn on the whiteboard, and the participants were informed that this particular activity should be performed without talking to one another. The managers took the sticky-note insights that they considered most important and placed them within the bull's eye. Negotiations were made by moving the sticky notes over the bull's eye as described in Chapter 3 (see Figure 21). Eight relevant and prioritized strategic insights were created using this method.

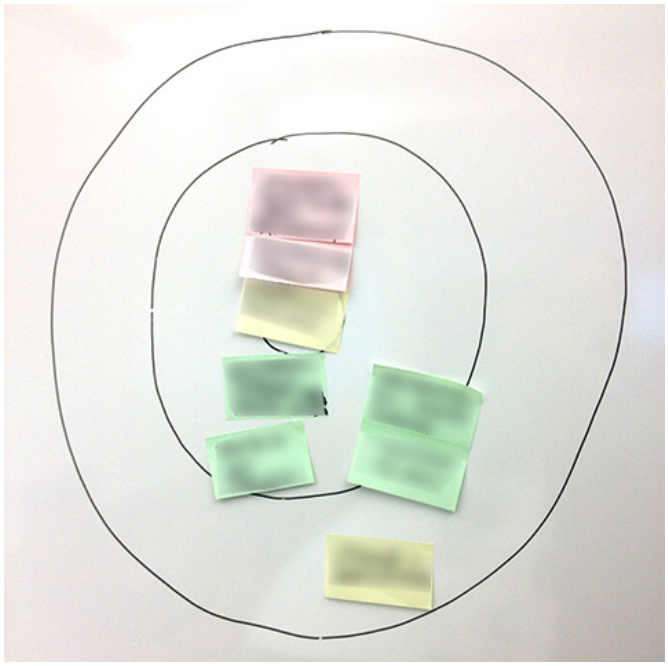


Figure 21: The prioritized insights on a bull's eye (censored)

Documenting and creating the outcome deliverables

After completing each of these activities, the team of top managers presented their insights and experiences as participants of the SWOT-analysis, content analysis with common denominators, and the prioritized findings on a video camera (see Figure 22).

Figure 22: Top managers presenting their interpreted insights on a video camera (censored)

The intended audience for the video was the innovation team. Therefore, the participants were instructed to use language that individuals outside the field of finance would understand but without cutting corners or oversimplifying the message. Additionally, the existing strategy and future focus of Samlink were explained.

The video clips were edited so that all relevant material was condensed into a brief nine-minute video deliverable. Additionally, the still photos and videos of the SWOT-analysis and the in-depth analysis of emergent themes were summarized into a detailed SWOT-analysis deliverable. The dimensions of the SWOT-analysis mind map documentation are shown in Figure 23.

Figure 23: In-depth SWOT-analysis deliverable (censored)

Reflections on the business insight creation workshop with Samlink's top managers

Samlink's top managers provided positive informal feedback after the workshop, indicating that the results were a gut-check for the top managers themselves during their daily strategic work and leadership roles. The strictly facilitated workshop was perceived as efficient and the top managers were all equally involved. The facilitation of the knowledge-creating workshop was deemed successful, effective, and valuable by both the team and the top managers.

The edited video brief was shown for the team members, who subsequently described the video as excellent using two dimensions essential for the success of the project. Specifically, there were no communication gaps or misunderstandings as the top managers presented their results. The video was unambiguous. Also, the team members were able to access the video through a video streaming service whenever and wherever was convenient even as they progressed to later design phases. Thus, the relevant knowledge was easily accessible.

The mind map was described as a desirable deliverable as well. The information provided was easy to examine in depth, and this in-depth knowledge supported the insights presented in the video brief, which, in turn, supported the mind map interpretation efforts.

4.1.2 The trend card asset and the review pre-task

As explained by Ojasalo et al. (2015, 204), reviewing and analysing trends is important to gain impressions regarding the environment and to understand alternative futures.

FutureScape innovation management tool to support anticipation

As a core anticipation activity, Fujitsu Finland routinely practises environmental scanning and crowdsourced trendspotting. Spotted weak signals and new trend data are systematically collected, then stored in a digital innovation management tool called FutureScape. FutureScape enables the innovation team to be innovative, efficient and visual in their efforts to forecast and make sense of the alternative futures' scenarios. The intuitive user interface allows the team to analyse, filter, and sort trends on a variety of filters, including chronologically. Meaningful and interactive views within FutureScape create a visual approach used to explore, test and combine how weak signals and trends may merge, evolve and form new future states. Modelling both realistic and idealistic alternative paths created from trend themes is a simple process within the FutureScape tool (see Figure 24 for an example), therefore FutureScape was utilized throughout the joint venture innovation experiment.

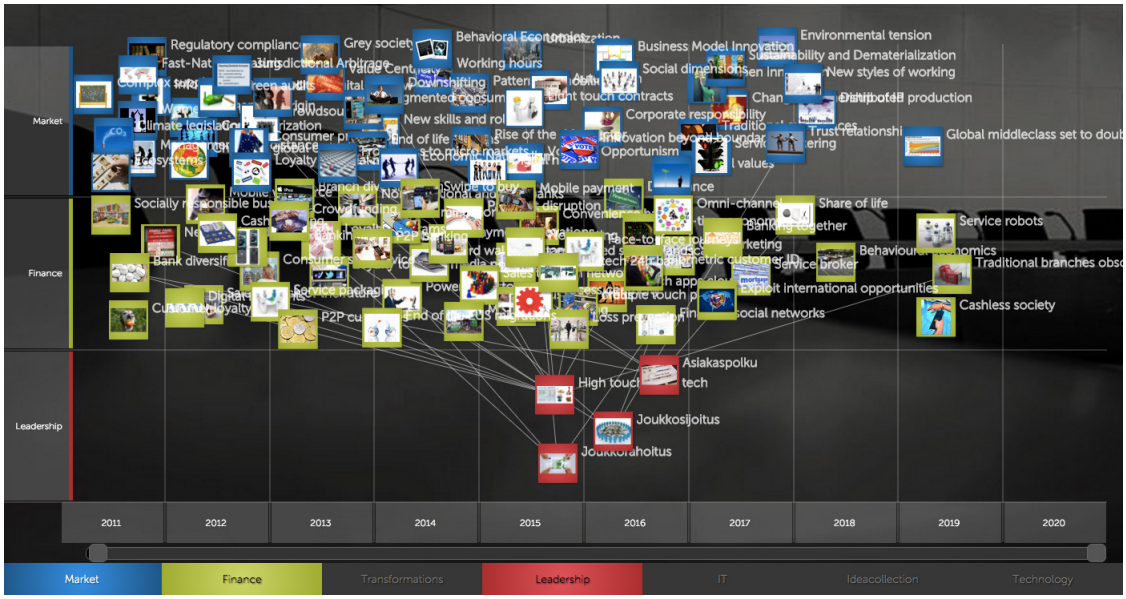


Figure 24: Display from Fujitsu Finland's innovation management tool FutureScape

The chosen trend card assets: market, finance and technology

For the next phase of the research, the team chose three different up-to-date trend themes to explore. The first trend theme was technology, because technology enables digitalisation of services. The second trend theme was finance, because Samlink's cooperatives and clients compete within financial business fields. The third trend theme was general market trends, because market trends aid in comprehending how customers behave today and in forecasting their changing habits. Moreover, the general market trends provide analogies that can be used for inspiration during the service innovation process, specifically in the creation of

realistic and idealistic scenarios. The foresights were intended to evolve from the exploratory forecasting intersection of the three trend themes, as seen in Figure 25.

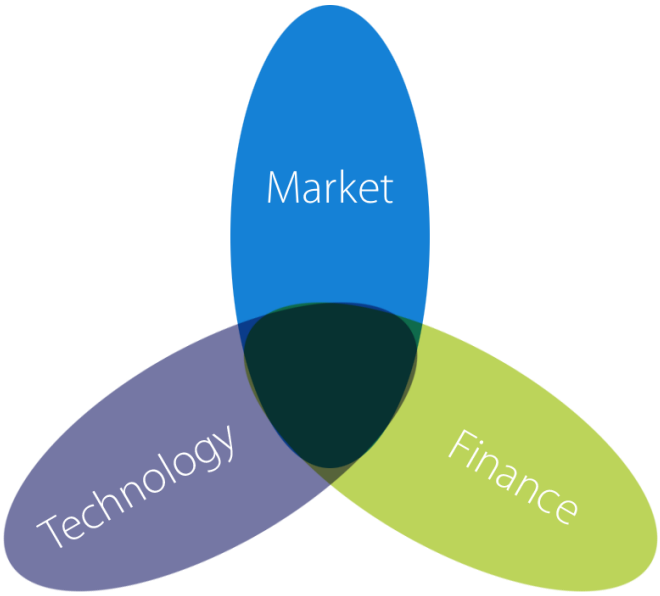


Figure 25: Trend themes and the intersection of idealistic scenarios

The trend themes included digital trend cards with descriptions that enabled understanding and internalization of world events (see Figure 26 for examples).

Figure 26: Examples of finance, general market and technology trend cards

All market, finance and technology trends used during the anticipation work can be seen in Appendix 2, Appendix 3 and Appendix 4.

Pre-task: trend review

A total of 271 trends in various stages of their life-cycles were identified within the chosen trend cards assets. The challenge was to find the most relevant and inspiring trend cards, then motivate the team to determine what forces are changing not only the financial and

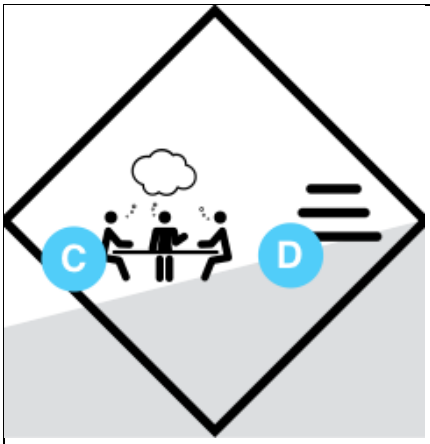
technology fields, but also the general markets. To address this challenge, the team members completed a pre-task by reading all 271 trend descriptions individually, then marked through the cards they deemed irrelevant. Intuition played an essential role in that trends that did not incur an emotional reaction from a team member were discarded. Trends that did not resonate with intuition felt subconsciously irrelevant in the brief design context.

Reflections of the trend card assets and the trend review pre-task

The FutureScape trend management tool and the trend care assets were the cornerstones for the creation and storage of insights. FutureScape and the selected trends were present for the entirety of the joint innovation experiment. Trend assets and the pre-task provided relevant answers to the initial questions: *what seems to be happening* and *what is happening*.

4.2 Forecasting and ideating alternative futures

After collecting the relevant insights, the team's challenge was to forecast *what may happen in futures?* Another challenge was decide *which futures does the team wish will happen?* The actions illustrated in Figure 27 were applied to answer these questions.



C Forecasting alternative realistic and idealistic scenarios

D Choosing the most probable and desirable futures

Figure 27: Applied methods and tools in Forecast and Ideate phase

4.2.1 Forecasting alternative realistic and idealistic scenarios

A workshop was organized to find answers to the question *what may happen in futures?* Brainstorming and context mapping methods were utilized during this exploratory and normative forecasting session. The goal was to create both realistic and idealistic scenarios of alternative futures. The CTO and Head of New Business Development for Fujitsu Finland was a

facilitator. The task involved the review and analysis of relevant trends in order to create mutual interpretations of alternative futures. The mutual interpretations were made by reading through the digital trend cards together and simultaneously brainstorming scenarios as a team.

The facilitator allotted from 2 to 5 minutes to review and discuss each trend. Additionally, it was the responsibility of the facilitator to clarify each trends with real-world examples, ensuring that trend descriptions and terminology were uniformly understood by all participants. The team was informed that the objective was to produce new trend-based service ideas together during the trend-asset walkthrough. Aside from the facilitator, the rest of the team focused on generating futures' scenarios.

In order to initiate the joint trend data interpretation and evidence-based ideation, the facilitator asked the following guiding questions:

- *What trend-based repeating patterns can be seen in future? Are there some plausible scenarios for how trends affect financial services?*
- *How might customer behaviour change in future? How might customers expect to be served?*
- *How can Samlink, its cooperatives, or its clients create new business from these insights?*

As intended, the previous questions generated discussion, and once the discussion began to flow naturally, the facilitator instead focused on listening and documenting the discussion using context maps on flipcharts. When discussion began to trail off, the facilitator concluded the task and presented the context maps produced during the discussion. Next, the facilitator encouraged the team to evaluate the ideas portrayed on the context maps. A total of 38 contextual maps were drafted, and an example of a context map outcome is shown in Figure 28.

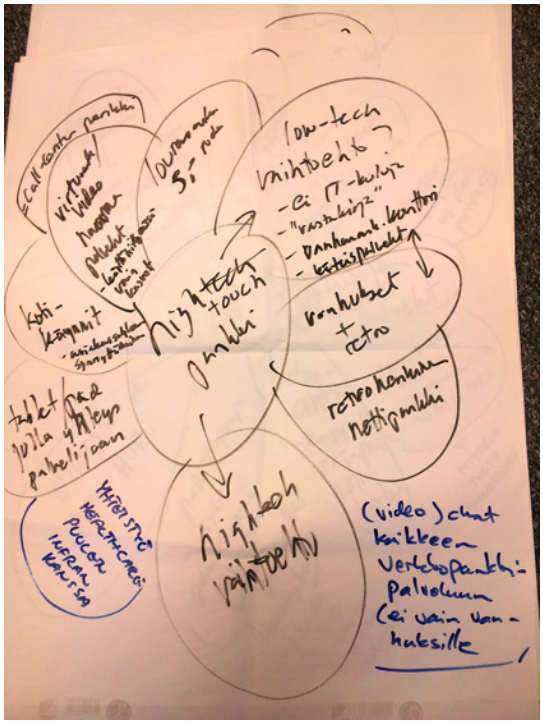


Figure 28: One example of the 38 workshop outcome context maps

The possible alternative realistic and idealistic scenarios, as well as their relationships with the evident trends, were stored within the FutureScape tool for later review. FutureScape generates a visual illustration of the relationship between the scenario and trends (see Figure 29).

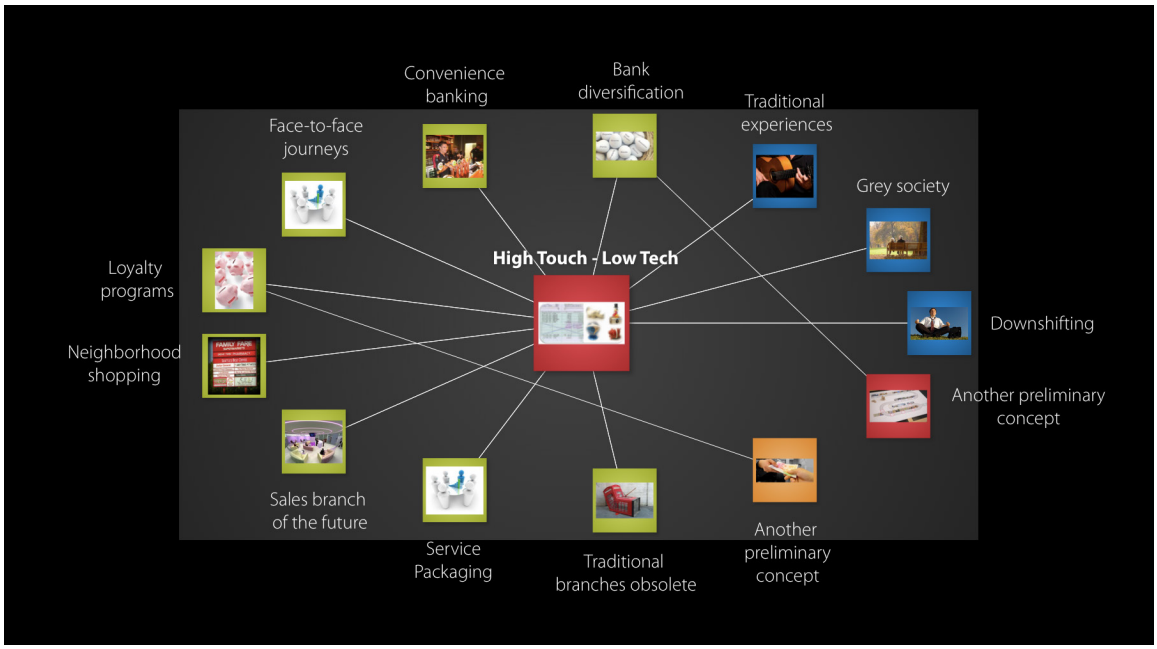


Figure 29: An example of evidencing trends of a scenario

As shown in Figure 30, the 38 alternative scenarios were stored within the FutureScape tool. Some of the scenarios are interpreted as confidential and have been censored accordingly.

Figure 30: The 38 scenarios stored within the FutureScape (in Finnish, partly censored)

Reflections of forecasting alternative realistic and idealistic futures

The applied forecasting methods were relatively effective when there were strict time constraints. The team members were able to focus on actively listening to one another and participating in the discussion. The guiding questions had pros and cons, but the facilitator was able to produce coherent context maps within the provided timeframe. However, the discussion could have been replaced with series of co-creative design thinking methods that would have allowed the team's intuition to play a greater role in exploring different themes, combinations, and perspectives. Moreover, the facilitator may have unconsciously led the interpretation process when synthetizing ideas and rapidly assigning them to a context map. However, the role of the facilitator was challenging in that it required several simultaneous tasks such as listening, interpreting the discussion to create meaningful context map assignments, and recording the insights on flipcharts.

In summary, the team found 38 alternative scenarios as answers to the question: *what may happen in futures*? Additionally, the collaborative analysis and forecasting produced three previously unspotted finance trends: *Real-time economy, P2P banking* and *Standardized service landscape*.

4.2.2 Choosing the most probable and desirable futures

The next challenge was to find answers to the question: *which futures does the team wish will happen?* This challenge was addressed using two separate approaches. First, each of the 38 alternative scenarios were evaluated using the following questions: *Would actors perceive the scenario valuable? Is the scenario feasible? Is there a possible business model? Do we feel passionate about it?* The scenarios had to be deemed acceptable using each of the four questions to ensure that the concepts would be *desirable*, *feasible* and *viable*. The work was done in a brief meeting convened to discuss each scenario. Only 6 of 38 scenarios successfully continued past this assessment.

Next, the team used the innovation growth model of Carleton et al. (2013, 36-37) to categorize the 6 scenarios and determine what kind of growth the scenarios might provide in a business context. This analysis suggested that two scenarios reflected *emerging growth*, three scenarios were interpreted to possibly provide *new growth,* and one scenario potentially represented *core growth*. Although the *core growth* innovation reflected Samlink's fundamental business objectives, it was not pursued further due to its strong technological approach, and technology itself does not provide value for actors (Edvardsson et al. 2005, 153). The scenario was documented and subsequently moved into another development roadmap.

The two *emerging growth* scenarios were interpreted to be plausible transformative scenarios with the potential to disrupt the traditional finance field on a large scale. The three *new growth* scenarios, referred to as *High Touch – Low Tech*, *Crowdfunding,* and *Crowdinvesting,* were identified as possibly providing market leadership for the cooperatives.

Reflections of choosing the most probable and desirable futures

Choosing the five most probable and desirable futures realistic and idealistic scenarios was not a time-consuming task. The diverse and heterogeneous team engaged in open-minded discussion that enabled objective decision-making. Thus, the two emerging growth and the three new growth scenarios were arrived at as answers to the question: *which futures does the team wish will happen?*

4.3 Modelling and evaluating foresights with illustrative methods

The next design challenge was to find answers to the following questions: *how could the desired futures come into being?* and *which foresights does the team want to happen?* The

five alternative futures forecast in the previous section were envisioned at a more concrete level to generate foresights. The design actions applied to find solutions to the phase challenges can be seen in Figure 31.

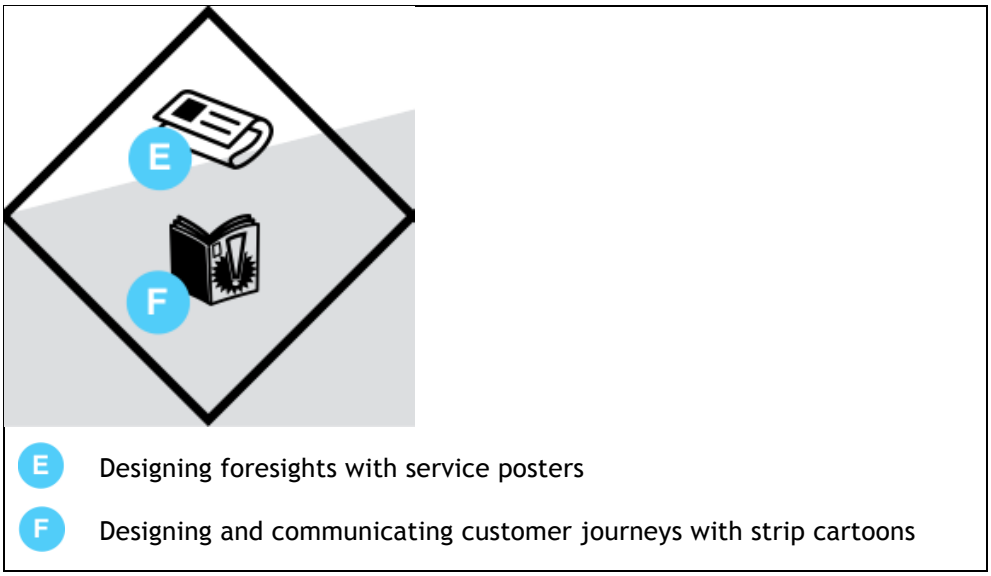


Figure 31: Applied methods and tools in Model and Evaluate phase

4.3.1 Designing foresights with service posters

The team's goal was to transform the forecasted scenarios into foresights. A poster tool was employed for the purpose of envisioning and capture the foresights. The goal was to create a holistic overview, defining the preliminary service concepts, the service system,and the key actors in each foresight. The work was done in two parts: *Drafting the service posters* and *illustrating the service posters to defining the value propositions*

Drafting the service posters with the team

Rapid visualization and discussion was required to create a shared vision. The preliminary service concept and service system design work was executed in two half-day workshops. The group was split into teams of two to ensure the production of diverse alternatives from different perspectives. Each of the five scenarios were spread on five tables, or stops, which had one scenario and its relationship to the trend-asset. Also, short instructions were provided to explain the progression of the process (see Figure 32).

Figure 32: A forecast with related trends and instructions on how to draft preliminary service concept

During the task, pairs spent 15 minutes at each stop and discussed how different stakeholders could create value together. The pairs told short “what if” narratives for each scenario in order to envision the foresights. Shamiyes (2010, 71) states, “Building foresight requires effective communication, so that insights can be converted into opportunities for innovation and success.” With this in mind, the pairs drew quick, rough sketches to visualize the service systems and different actors, as shown in Figure 33.

Figure 33: Pairs drafting service systems and actors on flipchart sheets

After the drafting round, all preliminary service concept drafts were presented and discussed, as shown in Figure 34.

Figure 34: Pairs presenting preliminary service concepts and poster draft alternatives

Next, the most essential parts were synthesized five preliminary service concepts to create a response to the question: *which foresights does the team want to happen?* Markers were used to highlight the key takeaways on flipchart sheets. Additional explanatory notes were added as well. Some examples of low-fidelity level poster drafts can be seen in Figure 35.

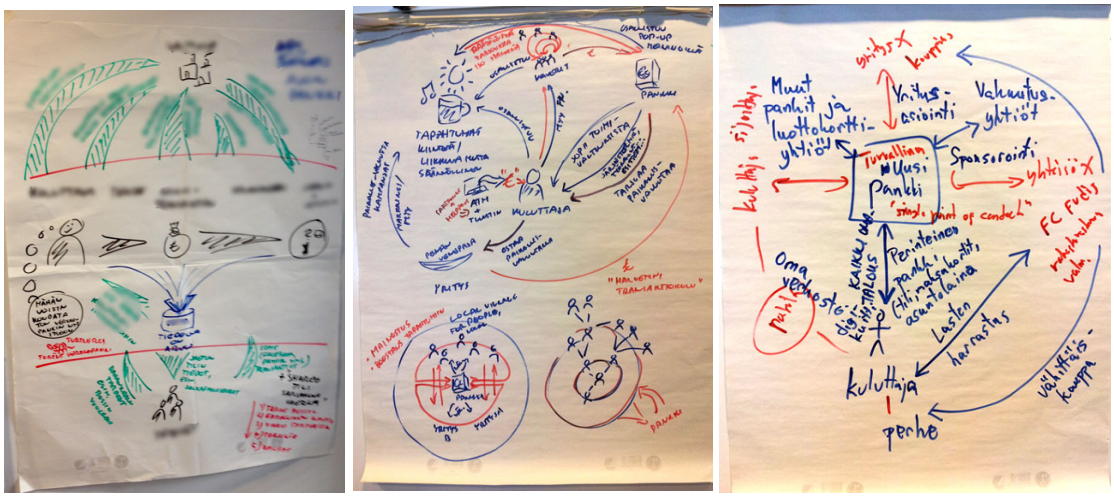


Figure 35: Poster drafts with converged and joint foresights (partly censored)

As a result of the two workshops, five quickly combined, low-fidelity poster drafts were produced to summarize the following attributes: key actors, service provided, and service received, with both the service outcomes and the customer experiences included in low-fidelity. The poster drafts captured plausible value propositions of each beneficiary actor that would ensure the sustainability of the futures service systems.

Illustrating the posters and defining the value propositions

The foresights had to be further refined in order to identify the actors with greater detail, empathize with the key actors in the service system, to imagine the process by which the key actors might co-create value together, and to envision the desired service experience, process and outcomes. Therefore, the team decided to create posters with more visual clarification. Additionally, stakeholder and value mapping processes were applied to create the foresights and make the preliminary service concepts more concrete.

A Freelance Artist was invited to join the team, and after sharing the five foresights, preliminary service concepts, and poster drafts, poster ideas were drafted using sticky-notes, markers and pens (see Figure 36).

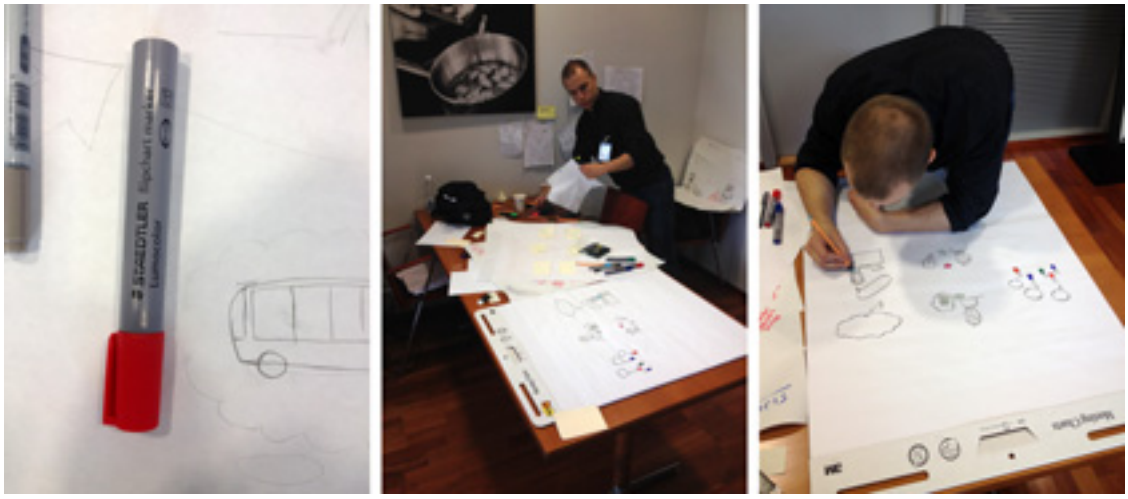


Figure 36: Designing, sketching and illustrating the final posters with the Freelance Artist

The transition from drafts to final posters was fairly rapid. An example of the evolution of a poster from the early draft into a final illustrated poster can be seen in Figure 37.

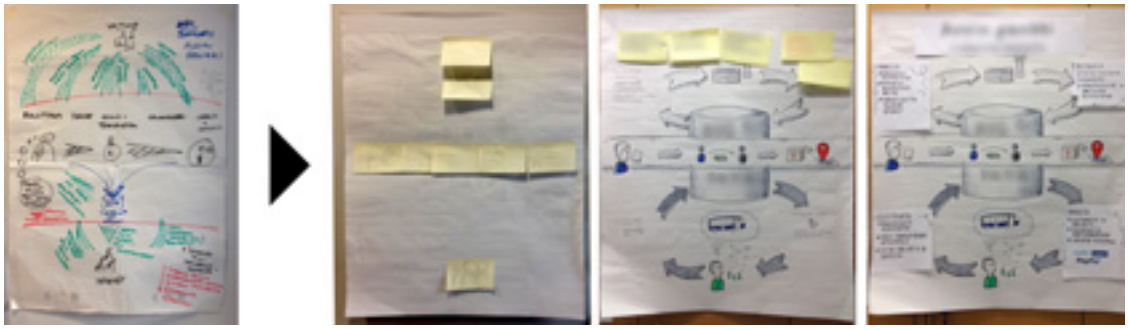


Figure 37: The evolution of a poster from draft into final illustrated poster (censored)

The five illustrated posters visually crystalized the key actors, such as users, customers, companies, organizations, etc. The value network and service system, value propositions of each actor, financial benefits, service provided and service received with outcomes and experiences were each included as well. Minute value proposition lists of each beneficiary were included next to each actor as reminders.

During the final poster design process, the preliminary service concepts themselves became clearer. The previously titled *High Touch -Low Tech* scenario was renamed *pleasant banking encounter* foresight. The titles for *crowdfunding* and *crowdinvesting* remained the same. Short preliminary service concept descriptions and the final illustrated posters can be reviewed in Appendix 5, Appendix 6 and Appendix 7. The two remaining disruptive foresights are not included within this study for reasons of confidentiality.

Eventually, each poster captured a short narrative intended for communication with individuals outside of the team, capable of demonstrating the proposed value co-creation process in future service encounters for each beneficiary actor.

Reflections of designing foresights with service posters

The posters were perceived as valuable design deliverables in several ways. First of all, the poster design process was valuable as an exercise. Designing the posters helped the innovation team recap essentials such as value proposition for each beneficiary, then transform idealistic scenarios into preliminary service concepts and foresights. Shared insights and joint discussion during the poster design process helped the participants envision and connect the foresights. Also, the Enterprise Architect declared that the poster method inspired him to rethink his typical approach and to solve complex issues with systems thinking. Thus, the poster design process empowered the work community and inspired creative problem-solving within Samlink. Finally, the posters were utilized as communication tools in latter phases, and additional benefits of and experiences with the posters are discussed in Section 4.4.2.

4.3.2 Designing and communicating customer journeys with strip cartoons

Both the poster co-creation process and the holistic overview of the preliminary service concepts gave insight into design challenges of this phase, specifically addressing the questions: *how could the desired futures come into being?* and *which foresights does the team want to happen?*. However, the futures customers' perspectives also had to be envisioned and clarified to generate empathy, as well as defining both the desired service experiences and the engagement of the actors, especially the customer. Moreover, the narrative stories illustrated using the posters are not self-explanatory. Thus, the cartoon strip communication method was chosen to explain the future customer world. The creation of five cartoon strips was an existing design process, utilized to envision the desired alternative futures as explained in the next section.

Writing manuscript and drafting storyboards

Creativity, visioning and imagining skills were required as fictional character – complete with challenges and gains - were created for the cartoon strips. Taking an empathic view of how the characters would experience the envisioned service encounters inspired the creation of imagined scenes, service encounters, customer journeys and the story as a whole. Five manuscripts were written using text editing software, and, after a short internal iteration process used to clarify, improve and reality-check, all manuscripts were ready to proceed

with storyboarding. In collaboration with the Freelance Artist, rough storyboards describing how the characters interact with each other in servicescapes and the service system were drafted (see Figure 38). Empathy for the characters was essential in designing the desired service outcomes and experiences using both provider and customer viewpoints.

Figure 38: Drafted storyboard of one manuscript (partially censored)

Character casting, staging and photoshoots

The next step was to use the storyboards as a photoshoot guide for casting, staging, and placing the digital camera appropriately. The project took place in Samlink's main office, where the office premises was slightly stage to resemble the envisioned environment as defined in the storyboards. Then, actors were cast from Samlink's work community and all still photos required for the cartoon strip creation were shot.

Illustrating the strip cartoon frames from photos

For the next phase of the cartoon strip development, the Freelance Artist traced the still photos into comic-like illustrations using a tablet device and stylus pen. The actors' personalities gave the fictional illustrated characters a realistic feel. The tracing process is demonstrated in Figure 39.

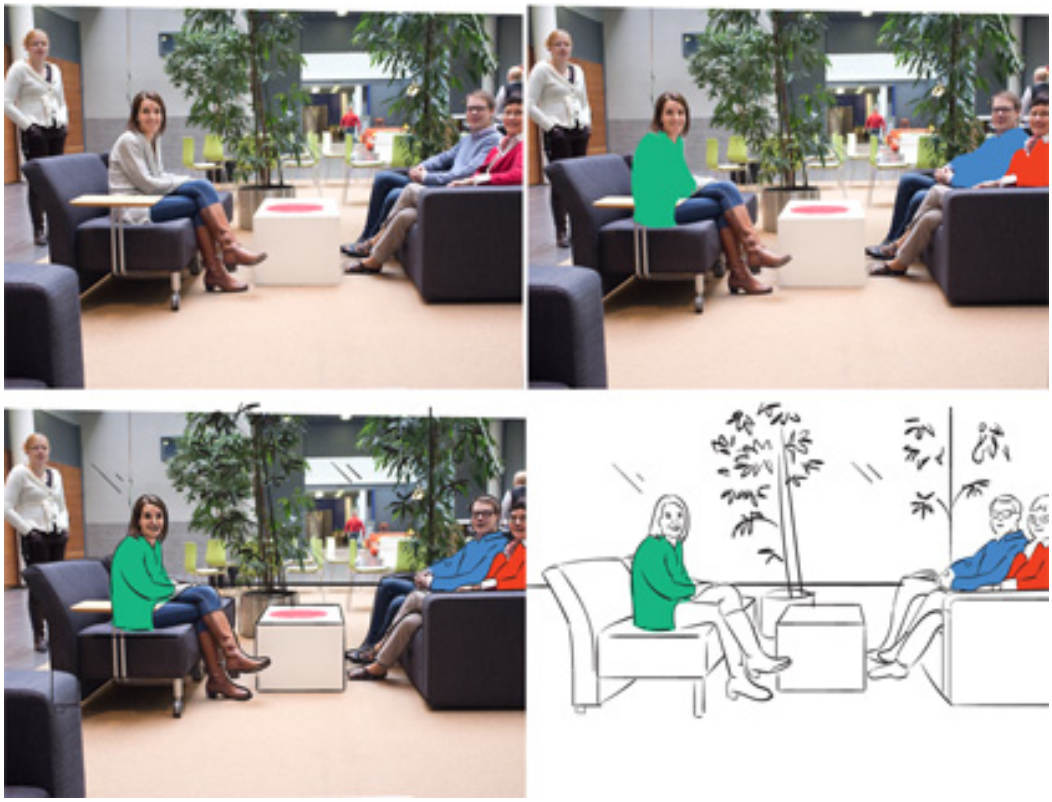


Figure 39: Strip cartoon frame creation and illustration process

Folding the strip cartoons

The Comic Life 3 desktop computer application was used to frame the illustrations, improve the flow of each cartoon strip, add details into conversations between characters, and generally ensure that the details fit together to form a reader-friendly experience supporting the preliminary service concepts and foresights. A frame of the finalized version of one strip is shown Figure 40.

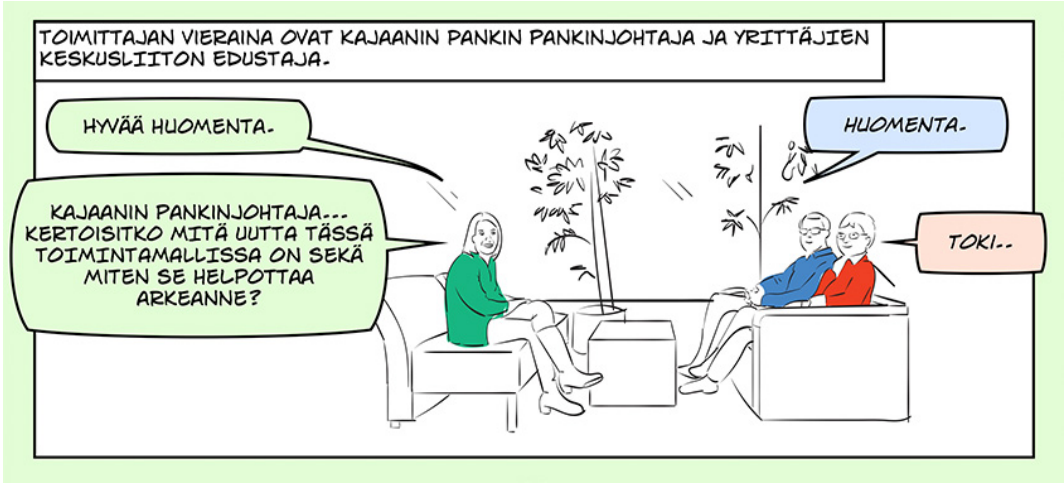


Figure 40: Example of a finalized cartoon strip frame

The team was eager to collect feedback and perceptions from readers regarding the preliminary service concepts. Therefore, small QR-tags were placed at the end of each strip cartoon (see Figure 41). Each QR tag provided a touchpoint accessible through the reader's mobile device, enabling the readers to provide feedback and express their thoughts. Whenever readers scanned the QR tags, they were directed to a brief mobile-optimized web survey.

Figure 41: A QR-tag provided a toutchpoint for readers to provide feedback

Eventually, all five individual cartoon strip stories were created and bundled into one 29-page comic book to be printed and shared when needed. A comic book is an analogy for *concept catalog* (Kumar 2013, 245). The cover of the comic book can be seen in Figure 42. The Finnish version of the *pleasant banking encounter* cartoon strip is recreated in its entirety in Appendix 8.

Figure 42: Cover of the final comic book (partially censored)

Reflections of designing and communicating customer journeys with cartoon strips

Cartoon strips and the comic book as tangible design deliverables received both positive and critical feedback from various readerships that included the innovation team members, Samlink's work community, and Samlink's cooperatives. One team member declared that "Designing the strip cartoons was time-consuming. Thus, added-value is arguable." The same team member expressed doubt regarding whether the cooperatives perceived the cartoon strips as valuable. The results of the survey are somewhat conflicting. One cooperative perceived the strip cartoons more valuable than another - see item *Q7: I perceived the comic book valuable* in Appendix 9 – but the rationale is not explored further.

Unfortunately, the QR tag touchpoint provided for the readers was not utilized to provide feedback. No feedback was received through the QR tag and digital survey. The reason for this underutilization is unknown. However, for future studies, a brief pilot of cartoon strips

and QR tags with potential readers might be beneficial in determining if QR tags are a desirable method for providing feedback through various mobile devices.

However, the cartoon strip design process revealed several learning opportunities for ensuring that this tool is perceived as valuable and effort well-spent. One recommendation is to lower the quality of cartoon strips for the sake of conserving time and effort. Additionally, the cartoon strips are valuable when a service concept must be communicated within a network of internal and external stakeholders and decision makers, especially if vision communication resources are limited. Cartoon strips are also valuable when the stakeholder network is diverse, complex and the workforce of either the client or the innovation team is medium-sized or large. Word-of-mouth helps in spreading awareness regarding the cartoon strips and their message. Cartoon strips are also valuable when the objective of an innovation process is to produce preliminary service concepts for several clients with a one-to-many product-centric mindset. In such contexts, the sales managers need the support of designers communicate and to sell new ideas to several clients. The use of comic books may simplify the sharing and communication of complex foresights and future service systems. Finally, cartoon strips are valuable when designing services through client–customer collaborative efforts because it can be challenging to include all essential stakeholders at the same time. Pitching an idea or utilizing various storytelling methods in person is preferable but may be impossible it might be more convenient for a key team member to hand-out a comic book to busy individuals and explain, “Here, read this strip cartoon to learn all about this new preliminary service concept. Ask for more. Ok?” The positive impact of engagement could be widespread if such conversations took place in the client’s work community.

Moreover, the comic book successfully promoted Samlink’s new dynamics and passion to co-create desired futures. Previous empirical studies of storified preliminary service concept cartoon strips led to a sales agreement between Samlink and a new client. One sales manager interpreted the cartoon strip as a key element in the client’s decision-making process, thereby reinforcing the idea that cartoon strips can be a powerful future-oriented and actor-centric design deliverable when done with suitable levels of quality and applied to the appropriate contexts.

As a result of the activities described in this section, the team was able to create a shared vision, then successfully design the service systems, value network and key actors with the posters and generate customer journey narratives with the cartoon strips. Both the poster and cartoon strip methods helped to transform the idealistic scenarios and forecasts into foresights, thereby creating solutions for the design challenges: *how could the desired futures come into being?* and *which foresights does the team want to happen?*

4.4 Conceptualizing and influencing with the cooperatives

The purpose of the final innovation process model phase was to more closely approximate reality – to seize the future. In pursuing this objective, the design challenge was approached using the following questions: *how will the future service be experienced*? And *how do cooperatives perceive the envisioned foresights of their world?* The team wanted to demonstrate previously unconsidered alternative futures for the cooperatives. The actions illustrated in Figure 43 were applied to answer these questions.

G Experiencing the seamless future banking service encounter

H Communicating service systems by pitching the posters

I Co-designing the futures using the design the box method

Figure 43: Applied methods and tools in Conceptualize and Influence phase

4.4.1 Experiencing the seamless future banking service encounter

The next design challenge was to find answers for the question: *how will the future service be experienced*? To find the answers, the service concept and its components - *service provided* and *service received* (Johnston 2012, 48) - had to be prototyped. The customer point of view was essential to the prototyping process, ensuring the service outcomes would fulfil customer expectations and providing desirable customer experiences. IDEO agency's Bill Moggridge is quoted as having said, "You can't experience the experience until you experience it" (Moritz 2015, 46), a statement that motivated the activities created for this design phase.

Prototyping also enabled the gathering of data as to whether the defined value propositions provided by the future service provider would support customer value co-creation during the envisioned service encounter (see Figure 44). Of additional interest was whether the service encounter and perceived service would engage the future customer.

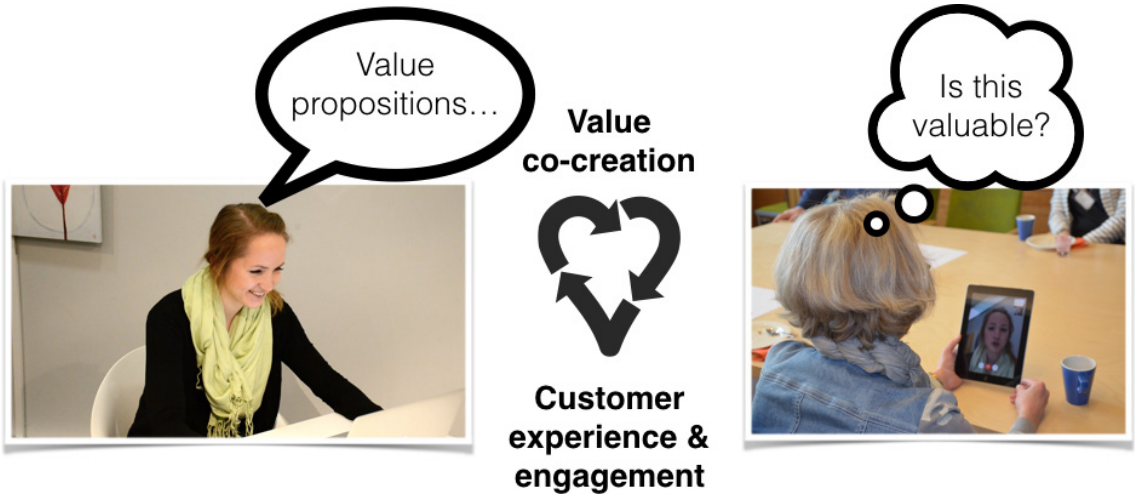


Figure 44: Prototyping service process, customer experience, value propositions and value co-creation

A third purpose of prototyping was to organise ideas such that the customer journey in simulated service encounter was clearly defined. Additionally, organising ideas enabled an exploration of potential fit for the five new preliminary service concepts and products within two cooperatives' service offerings.

The final objective of prototyping was to motivate the cooperatives to move forward with the new service development process together, aligning the foresights at a strategic level by transforming foresights into strategic foresights and making progress towards seizing the futures.

To being the prototyping process, improvisation, socio-drama, role-playing and acting were utilized to solicit solutions to design challenges. One cooperative representative and one Samlink employee were assigned as actors for a role play. Two roles were designed for the scenario: a bank teller and a bank customer. Scripts were for the bank teller, allowing her to prepared and practice beforehand in an effort to provide a seamless service experience for individual acting as the bank customer.

Representatives from the cooperatives were emailed invitations to take part in a staged new bank opening event. The event was inspired by the *pleasant banking experience* preliminary service concept. The key objectives of the invitation were to raise interest, create expectations, and communicate that Samlink and Fujitsu Finland were collaborating on a new innovative approach. The invitation stated: *Dear Customer, You are warmly welcomed to the celebration of a new bank with us. We would like to take this opportunity to familiarize you with new service and products.*

The meeting room was staged to appear as a new servicescape of a future retail bank. Each team member was assigned an individual role and instructed to improvise when needed. The acting began as the cooperatives arrived the bank and whenever the door opened, every representative was welcomed and treated like he or she was a real bank customer.

Next, one of the cooperative representatives was randomly selected to improvise a bank customer role, acting in a new service encounter scenario with the bank teller. The bank teller sat in another room, and the livestream was projected on a large wall-mounted TV using Apple TV. This setup allowed the audience to observe the envisioned service encounter, helping them to understand the concept and make their own interpretations. As part of the simulated hyperreal experience, the cooperative representative used a tablet device and live video call to interact within the simulated *pleasant banking encounter* preliminary service concept (see Figure 45). The actors – both the customer and the bank teller – and the audience had a lot of fun taking part in the experience.

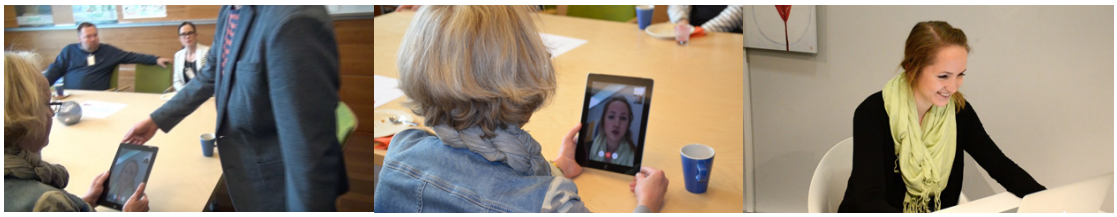


Figure 45: A participant was surprisingly invited to improvise in a live service prototype

The live service prototype was simultaneously recorded in both rooms using video cameras, then later edited into a service concept video. A short clip of the video can be seen from http://bit.ly/kyto-live-proto or via mobile devices by scanning the attached QR code from Figure 46.

Figure 46: Watch a short video of the staged role play scenario in http://bit.ly/kyto-live-proto

This simulated service experience allowed both the cooperative representative and the audience to perceive the perspective of their own future bank customers. The video captured how a bank teller and a customer might actually interact and co-produce the service encounter in the future.

Reflections of experiencing the seamless future banking service encounter

Within the role-play, the ability of the bank customer to approach the situation in an unscripted way, providing her own responses and decisions, created a unique and exclusive service encounter within the hyperreal simulated experience. At the same time, the scenario script for the bank teller's role ensured that the actress had the opportunity to practice the encounter properly beforehand. Because of the nature of the prototype, all plausible service process cross-roads were not included in the design. Therefore, the bank teller occasionally had to improvise in order to return the customer back to the envisioned customer experience. Both the Samlink's employee and the cooperative representative were able to deeply connect to their roles and empathize with potential customers going through the service experience.

Arranging the event, staging the servicescape, writing and revising the role-play script, bank teller rehearsal, and technological preparation required the time and effort of many individuals. However, the work was successful in a variety of ways, thereby making the effort a valuable investment. First of all, the manuscript forced the team to organise and define the preliminary service concept and service outcomes into a customer journey that would include positive experiences. Also, the role-play enabled the innovation team to communicate and share the foresights with the cooperatives using a hyperreal experience. Finally, the recorded and edited concept video can be used as a design deliverable to communicate the envisioned service concept, allowing the real bank tellers, customers and software developers to glimpse the preliminary service concept when conceptualizing and transforming the concept into reality – *aligning the foresights at a strategic level*.

Some positive feedback was received from the cooperatives:

> *'Much effort was given into the event, and that came over during the whole forenoon. I owe you for that! Moreover, it's nice to see Samlink practicing not-so-traditionally.'*
>
> *'Very well organized and prepared event. THANK YOU!'*
>
> *'The event was organized extremely well and prepared remarkably well. Such ideas and courses of actions would be nice to see in future as well,*

because they also provide fuel for our own work. Far into future. Thank you!'

However, the role-play offered several learning opportunities to aid in future improvements of the process. First of all, the team could have interviewed the participants after the role-play to provide objective measures the perceived experiences instead of just subjective impressions. Measures could have explored reactions regarding the service provided and the service received by asking about the experiences and service outcomes, as well as evaluating how possible, plausible, or probable the foresight really is.

Next, although Edvardsson et al. (2005, 151) never applied the experience rooms and hyperreality framework directly to the NSD process, they explain that "[…] hyperreality is, perhaps, best read not as a hypothesis or as a concept but when treated as a tool." Therefore, there may be methods by which the application of experience rooms and hyperreal simulated experiences into NSD process could occur more systematically. Additionally, it is somewhat unclear as to how the design dimensions - *physical artefacts, intangible artefacts, technology, customer placement, customer involvement* and *the service experience through hyperreality* – should best be applied and measured.

Additionally, the recorded preliminary concept video should have been analysed collaboratively and in greater detail. Analysis would aid in separating the design requirements of the preliminary service concept into the different simulated hyperreal dimensions suggested within the framework of Edvardsson et al. (2005, 154).

Finally, including an actual bank customer and legitimate front-end bank teller in the service experience role-play would provide greater support for aligning the foresights at the strategic level, like discussed in Section 2.2. Actual front-end employees and customers could provide *real insights* regarding whether the service concept would be valuable, how actual customers would perceive the service encounter and experience, and how the service process and different attributes could be improved. In-depth interviews after the simulated hyperreal experiences could narrow the gaps between different worlds, including service provider and customer, as well as present day and desired foresight.

Eventually, the role play provided some answers into questions: *how will the future service be experienced*? and *How do cooperatives perceive the envisioned foresights of their world?* However, next time the design challenge could instead include the question: *how do real actors from both worlds perceive the envisioned foresights?*

4.4.2 Communicating service systems by pitching the posters

The role-play provided a customer's view of the service process for the cooperatives. However, service systems and value networks are relatively complex, and the team wanted to provide a shared and overarching understanding of the preliminary service concepts. Moreover, the team wanted to investigating the question: *how do cooperatives perceive the envisioned foresights of their world*? In an effort to achieve these objectives, the team wanted to provide alternatives for the cooperatives, encouraging them to choose which of the alternative futures the cooperatives viewed as having the greatest value and which they perceived to be the most feasible. The goal was to solicit and receive objective feedback, which would then be used to improve the preliminary concepts and enhance fit with future markets. Hence, the team arranged a short proposal session for each of the two cooperatives, which are described below.

At a practical level, the plan was to use the illustrated posters (discussed in Chapter 4.3.1) to pitch and discuss service concepts, then collect qualitative feedback from the cooperative representatives. Each of the five posters were affixed to the walls for display purposes. Cooperative representatives were split in small groups of two to three persons. Each innovation team member was accountable for hosting a five-minute pitch for one group at a time. The groups travelled around the room, visiting each poster and listening to each hosts' pitch, as seen in Figure 47.

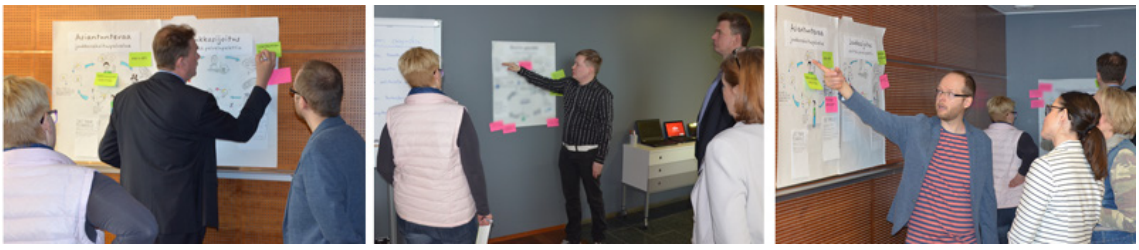


Figure 47: Concept pitching, discussion and receiving feedback from small groups

The pitches included information regarding the service system, key actors, value network, financial benefits and value-propositions of each beneficiary. As they visited each poster, the small groups were encouraged to discuss and question the preliminary service concept, providing both positive and constructive qualitative feedback. These lively conversations produced feedback that was written down on color-coded sticky-notes: green for positive feedback and yellow to indicate potential issues and pitfalls that might require additional considerations. Sticky-notes were placed on the posters, close to the relevant content.

After a complete round of pitching, each host briefly summarized the discussions and feedback received for the whole audience. At that time, a group discussed ensued in which

more qualitative feedback was received. Next, the representatives were asked to choose one or two preliminary service concepts that seemed most promising . The representatives of both cooperatives produced unanimous decisions, thereby avoiding the need to vote on the most desirable, feasible and viable futures.

Reflections of communicating service systems by pithing the posters

The pitching session was described by the team as a comfortable and natural approach to gathering input. The relatively intimate setup between the hosts and groups supported fluent interaction that resulted in many valuable positive and constructive feedback comments. Every individual included in the process had an opportunity to express himself or herself, a necessary accomplishment for creating mutual understanding and motivation to collaboratively proceed with the design work. The feedback and discussion that took place during the pitching exercise provided the team with a more objective perspective for future decision-making.

Following the exercise, a digital survey was sent to the cooperative representatives. The results of the showed that 7 of 10 strongly agreed and 3 of 10 agreed that *the concepts were pitched clearly and understandably* (see Appendix 9).

Moreover, the qualitative feedback received during the session provided insights suggesting that the posters supported the workshop objectives. The following feedback was received: '*The presentation event was good, well organized!*' and '*Much effort was given into the event. That came over during the whole forenoon. I owe you for that! Moreover, it's nice to see Samlink practicing not-so-traditionally*'. The posters were also described in positive terms by individuals assigned to host roles. In describing their efforts to successfully pitch the service concepts, one team member declared, "The posters enabled concise concept reviews that is valuable for different interest groups." pitch the concepts successfully.

The illustrated service posters displayed an organized vision of the service concepts that helped the cooperatives unanimously decide which alternative futures were plausible using the perspectives of the service provider and customer. The presence of the posters – tangible illustrations which summarized customer and bank value-proposition lists and served as reminders for *what is in it for everyone* - promoted greater ease and comfort among the participants for contributing to the discussion. . The use of sticky-notes placed in positions on the posters facilitated the collection of relevant feedback quickly, easily and visually, as did the discussion which was recorded with a video camera. Through the use of these activites, the team succeeded in discovering solutions to the design challenge question: *how do the cooperatives perceive the envisioned foresights of their world?*

4.4.3 Co-designing the futures using the *design the box* method

After the most promising futures were selected by the cooperatives, the next design challenge was to further explore the environment of the cooperatives with the question: *how will the future service be experienced*? Specifically, the goal was to gain deeper understanding of the question: *how do the cooperatives perceive the envisioned foresights of their world?* The plan was to involve the cooperative's representatives in a *design the box* co-design workshop. The *design the box* workshop was chosen as an opportunity to identify realistic customer expectations, to discover the value-propositions of the cooperative within the value network, and to fit the new preliminary service concept in a context that included the cooperative's business and customers. Low level tangible service prototypes that would encapsulate a narrative scenario were the expected outcomes of the workshop.

The cooperative representatives were instructed to work in two small groups. To introduce the activity, the following design brief was used:

> *First, take a moment to decide what kind of customer you are trying to approach.*
> *Second, as you design the new service and the new product, consider the following:*
>
> 1) *How will you pique your customer's curiosity?*
> 2) *What are the essential components of your service or product? Will they attract your customers and fulfil your customers' needs?*
> 3) *What is your value-proposition? Imagine it from a customer's point of view and ask: what do I get out of purchasing this service or product?*
> 4) *Design the call-to-action to be as simple and direct as possible. Imagine it from a customer's point of view and ask: what is the first thing I need to do to have this service?*

Shoeboxes covered with blank paper were provided for the small groups to craft a visualization capturing the key attributes of the service concepts. A 20-minutes timeframe was allotted to complete the activity. The small groups engaged in brief discussions to decide what the typical customer might look like and consider the other question prompts provided in the introduction to generate a clearer vision of the future of the service concept (see Figure 48).

Figure 48: Groups of cooperative representatives shaping and seizing the service concepts in groups

After the allotted time expired, the small groups each presented their shoebox to demonstrate what the service could potentially look like. Group members applied storytelling and improvisation techniques to generation an emotional reaction to their service encounters while sharing their vision with the larger audience. Figure 49 shows participants presenting, improvising, and pitching their ideas using creative and lively explanations.

Figure 49: Small groups presenting their ideas to one another

Once more, the presentations were recorded with a video camera for later use as a communication tool intended to share the cooperatives' service concept visions. Photos of the final boxes can be seen in Figure 50.

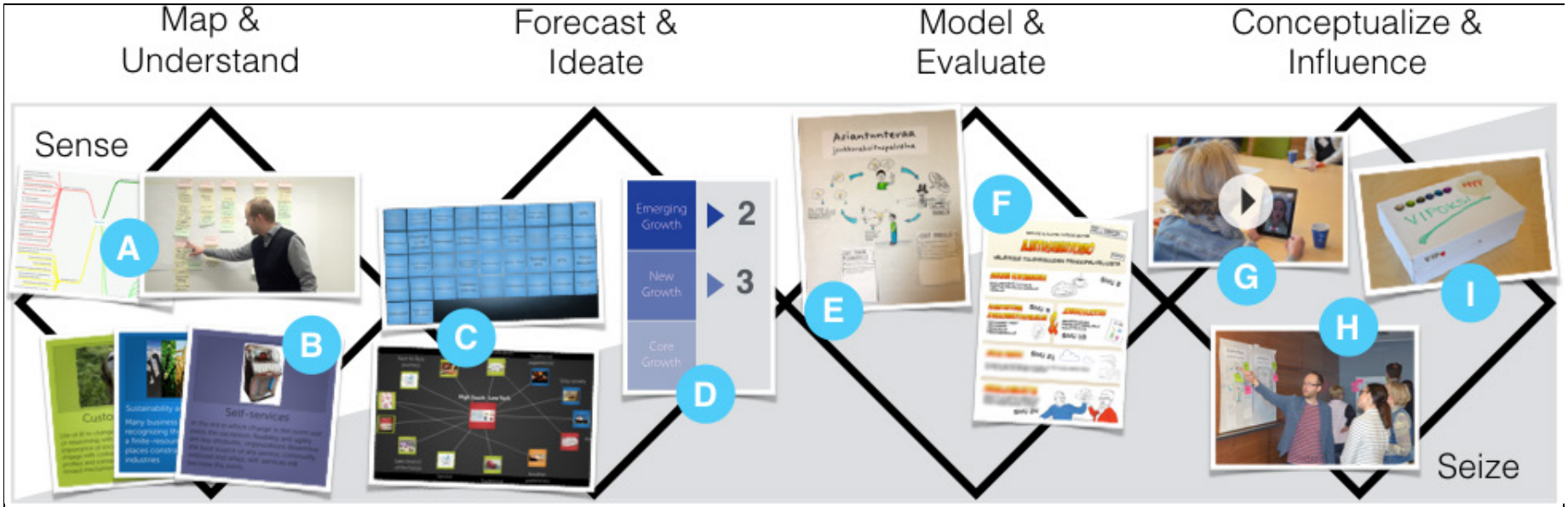
Figure 50: Outcomes of the design the box workshop

Reflections of co-designing the futures with design the box method

The small groups were creative, energetic, and enjoyed themselves as they worked collaboratively on their box projects. The *design the box* workshop method was deemed successful for several reasons. First of all, the groups succeeded in capturing and adapting the key service attributes, opportunities and strengths necessary for designing an omni-channel approach to the desired service using their own business context. Also, the cooperatives were able to approach their value-propositions while including considerations regarding customers and other relevant actors. Additionally, the groups ensured that the service concept would support their existing products and service as a whole by creating a dialogue around how the service concept could make the cooperative's service *viable*, *feasible* and *desirable*. The groups also deliberated over how attract the curiosity of customer, then invite and involve a customer with the service using a *call to action*. Furthermore, the groups discussed optimizing communication in terms of tone of voice and customizing conversation points to attract specific customers. Finally, the groups reflected on how their customers would interact together within the service system and value network. Quantitative measures of the perceptions of the cooperatives representatives were collected using the statement: *the mini-workshop helped me and my colleagues to identify the opportunities in our own business context* (see Appendix 9).

Using the applied *design the box* workshop to empathize with envisioned customers, the cooperative representatives provided some solutions to the design challenge questions: *how do the cooperatives perceive the envisioned foresights of their world?* Additionally, video footage from the activity suggested some answers for the design challenge question: *how will the future service be experienced?*

This workshop completed the joint venture service innovation experiment. All design activities and outcomes of the joint venture innovation experiment are summarized in Figure 51.



A A mind map exploration of Samlink's business insights (SWOT) Video brief of prioritized strategic actions

B Review of 271 market, technology and finance trend cards

C 38 realistic forecasted alternative scenarios

D 2 emerging growth and 3 new growth futures

E Five service posters and preliminary service concepts

F A comicbook with five storified idealistic customer journeys and foresights.

G Captured improvised and role-played live service experience prototype video with envisioned future front-end employee and customer.

H Five pitched and shared preliminary service concepts and received feedback for future work

I A tangible prototype to conceptualize, transform and strategically align the foresight into cooperative's business domain

Figure 51: All results of the joint venture innovation experiment 2014-2015

5 Conclusions

The purpose of this thesis is to research how a future-oriented service innovation process model can be used to benefit joint ventures. The objective is to innovate new service concepts and engage business customers.

This final chapter includes proposals for turning identified areas of improvement within innovation process into future strengths. These suggestions are intended to resolve the two initial research questions:

- *How design and a foresight mindset be developed within the joint venture?*
- *How can the new service development process be developed within the joint venture?*

This focus of this study was research-oriented development, supported by a thorough review of recent literature of relevant theory and applied methods, as discussed in Sections 2 and 3. Research-oriented development is considered a scientific approach (Ojasalo et al. 2014, 19-22), thereby enabling the application of the studies, conclusions and implications presented in this work to additional company and joint venture contexts.

The objectives of this study were achieved in part; specifically, the service innovation process generated five new service concepts with a systematic approach. As the process began, new insights were collected by selecting three trend assets - marketing, finance and technology – with which to examine Samlink. The collected insights were then interpreted, and alternative futures were systematically forecast. Next, as a result of these activities, 38 realistic scenarios were revealed, and then evaluated, prioritized and transformed into five alternative forecasts and scenarios. The five forecasts were developed into five foresights using design methods that also served to define service systems, key actors, value-propositions and customer journeys. Eventually, the service experience of future customers was simulated with role-play method, and further explored in a cooperative business context using the *design the box* method.

The loosely coupled joint venture innovation setup provided support for the success of a long-term strategic alliance. All team members had different backgrounds, an advantage that was seen as a key success factor. Although Samlink's and Fujitsu Finland's entry into service innovation collaboration was in its initial phase, both companies were patient and realistic, and an atmosphere of mutual respect was prevalent amongst the members of the innovation team. Both companies recognize that strategic and financial benefits can only be reached in long-term strategic collaboration. Additionally, the marketing and communication units of

both companies did excellent work cross-promoting the collaboration. Thus, the loosely coupled joint venture was efficient and effective.

However, because the business customers - the cooperatives - were only partly engaged with the outcomes of the service innovation process, the objectives were not completely fulfilled. Initial discussions of the service concept transformation were held with one of the cooperatives after the joint venture service innovation experiment. The purpose was to continue conceptualization and strategic foresight alignment in collaboration with the cooperative. Although the cooperative representatives agreed with the recognized potential of the envisioned service concepts, they expressed concern that the window of opportunity was not favorable. Therefore, the cooperative involvement throughout the entirety of the service innovation process could have been more effective in terms of time and efforts.

Although the processes and chosen methods utilized in each of the four phases provided support for attaining the project objectives, the service innovation process that was ultimately selected was only one approach which combined both service and foresight design methods. However, the intact synergy of futures thinking and design thinking in the service innovation process model is reasonable, as suggested by Ojasalo et al. (2015, 201). Ojasalo et al. (2015, 201) also explain how futures thinking and design thinking overlap and support future-proof service innovation, stating “Together they [design thinking and futures thinking] help in uncovering customers’ expressed and latent needs and recognizing and influencing changes in business environments.” Because design thinking is human-centric, prioritizing human values and needs at its core, more active involvement of customers, front-end employees, cooperative representatives and other relevant human actors in future innovation processes would provide more human-centric insights and true needs of both cooperatives and customers.

Shifting the perspective from provider-dominant logic into customer-dominant logic

The customer-dominant logic was coined in 2010 by Kristina Heinonen, Tore Strandvik and Karl-Jacob Mickelsson as an approach that focuses more deeply in customer’s world than S-DL by highlighting the value of the customer’s life - value-in-life - and considering the “invisible and mental actions” of customers. The researchers argued against G-DL, S-DL and SL, highlighting their provider-dominance approach in service marketing and their provider-centric mindset which requires customers to adapt to a company’s processes and activities. In such cases, the provider controls the value creation process and customer satisfaction is not a priority (Heinonen et al. 2010, 532).

The more the provider focuses on understanding the daily lives of customers, the more customer-centric the provider is considered and more likely the customer is to collaborate with the provider. Logic suggests that the provider should design its business so that customer is able to invite and include the provider into *his or her unique environment*. Table 8 identifies and breaks down the challenges of provider-dominant and customer-dominant challenges. Instead of focusing attention on provider-dominant challenges (see left column of) during the service innovation processes, customer-oriented providers focus in customer-dominant challenges to attain a customer-centric service culture.

	Provider-dominant challenges	**Customer-dominant challenges**
HOW	How do the customers consume the service?	How do the customers live their life?
	How should the service be designed?	What routines do the customers have?
	How may the service process be developed?	What delights/irritates the customers in their everyday life?
	How do the customers want to co-create?	What do the customers enjoy and have an interest for?
WHERE	How/why do the customers make buying decisions?	What are the internal and external living contexts of the customers?
	What influences the customers choices of service/distribution channels	How mobile are the customers?
	Why are the customers unsatisfied?	What are the customers' life situations?
WHEN	When do the customers want to be served?	What are the customers' time-frames?
	How do the customers want to be served?	How hectic is the life of the customers?
WHAT	What do the customers say?	What do the customers feel?
	What motivates the customers?	What do the customers have a passion for and dream of?
	How can new services be innovated?	What are the challenges in the life of the customers?
WHO	How do the customers behave?	Who are the customers?
	What role do the customer have in the service process?	What roles do the customers have in their everyday lives?
	Who influences the customers' decision making process?	How are the customers' social life structured?
	How may the brand be developed?	What do the customers believe in?
	How may the customers be segmented?	What customer life profiles may be identified?

Table 8: Customer-dominant challenges (modified from Heinonen et al. 2013, 115)

The approach was intended as *a safe place to fail fast*. Thus, this study was experimental in nature, serving as an initial entry into a new field of strategic alliance collaboration – service innovation. However, the main opportunity for improvement focused on within this study was the challenge to innovate new service concepts *for* the cooperatives. Following the service innovation experiment, it became clear that the joint venture could take more customer- and human-centric approach in upcoming service innovation undertakings, and explore the novel possibilities of the recent S-DL, SL and C-DL marketing theories discussed in this thesis.

There is a saying: “The greatest danger in times of turbulence is not the turbulence; it is to act with yesterday’s logic” (Drucker 1980). In an effort to shift the perspective to customer-dominant logic, a deeper focus on actor value co-creation, human daily work, and service experience design during future service innovation processes must become a priority. In order to be successful as a business, there must also be a greater focus on customer challenges, efforts which can be supported by using the guiding questions in the right column of Table 8. Shifting the logic will ultimately create a deeper understanding of customer values, needs and mental models.

Constructing a strategic bridge, linking provider-dominant logics to customer-dominant logic and following the value paradigm shift of the service marketing field entails the shift. Lüftenegger (2014, 73-77, 122) presents a *service dominant strategy tool* that may support the transformation, as illustrated in Figure 52.

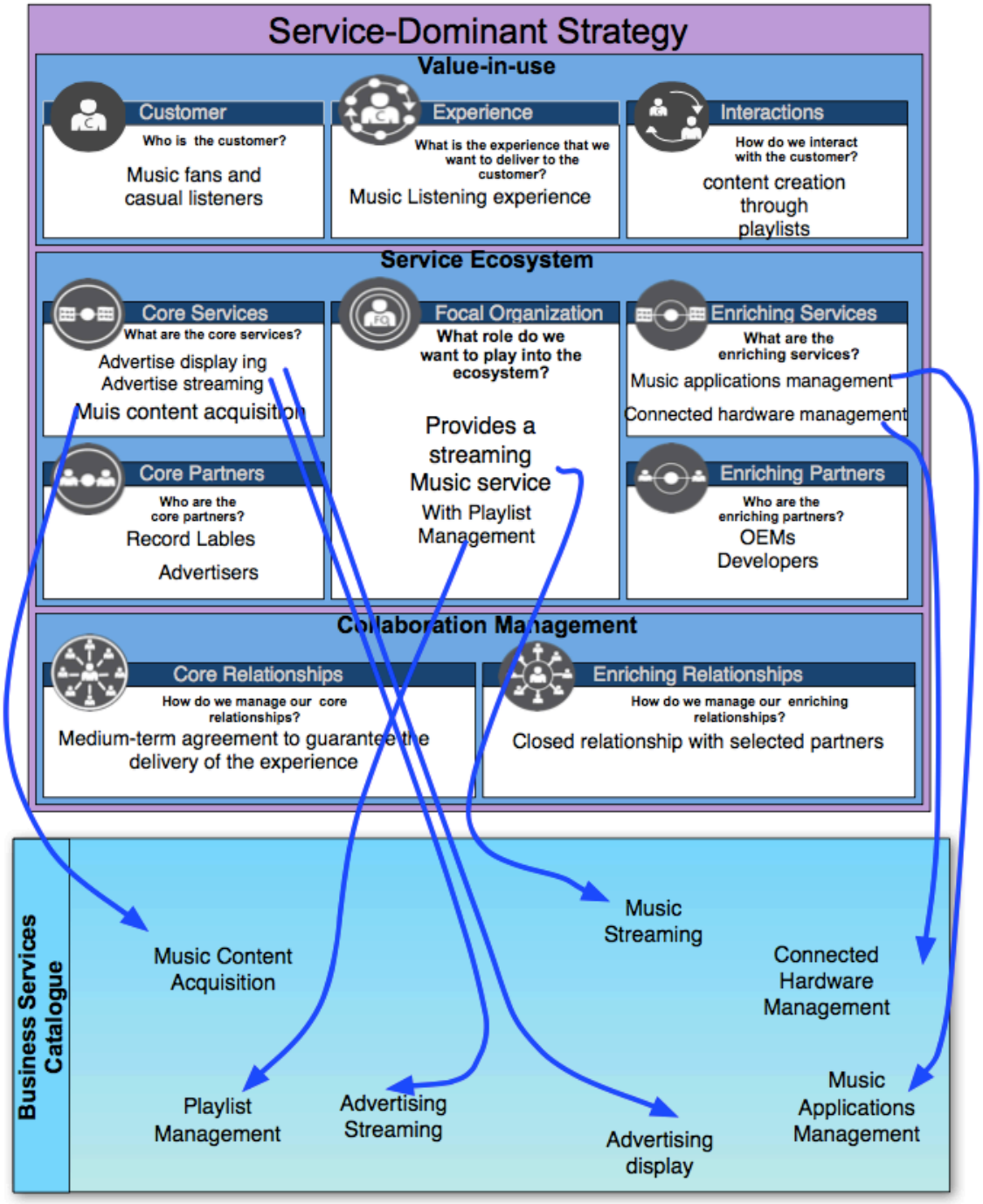


Figure 52: Service-dominant strategy tool, Spotify example (Lüftenegger 2014, 122)

Actively involve multiple actors in the service innovation process

The next proposal is intended to address the previously discussed areas for improvement, specifically the absence of customers and front-end employees in the initial sensing stage of the innovation process. Samlink, in both its service innovation process and the joint venture collaboration, is proposed to shift gears to involve customers, users, employees, cooperative representatives and cross-field partners from the earliest stages in order to ensure value of

every beneficiary. Furthermore, focusing on customer needs and concerns would provide support for new service innovations.

Multiple actor involvement should appear in the several practices. The design challenge itself should be framed *with* the co-operative, including defining a guiding solution characteristic to provide a direction for the service innovation process. These characteristic could then be transformed into design research questions, which would eventually serve as a foundation for the process and design methods. Additionally, front-end employees, customers, user and student communities, cooperatives' representatives and more diverse experts of the joint venture partners should be included as part of data gathering, interpretation and forecasting. Such participants can be inspired and empowered, then serve as valuable feedback sources in processes such as iterative alternative futures modeling and ongoing prototyping. Finally, multidisciplinary experts should be leveraged to provide insights of alternative futures, delivering diverse forecasts and foresights.

A seamless collaboration as a widely networked alliance would be beneficial for all cooperatives, Samlink and Fujitsu Finland, and to compete within the rapidly changing financial field. Deeper customer understanding, along with strong strategic foresight design capabilities, would support a mutually advantageous long-term partnership. There is a natural connection to service in the finance realms as well, with recent concepts such as circular economy and sharing economy serving as examples. If large companies prepare flexible company cultures, allowing for human-centric design thinking and trial-and-error mindsets, such companies can become dynamic enough to align their business with the changing habits of customers and clients.

Focus on dynamic capabilities

Positive experiences of the freelance involvement, constructive and positive cooperative feedback (see Appendix 9), and proven capabilities of the five service concepts and related design deliverables provides proofs of bringing service and foresight design in core of strategic business in both case companies. Recruiting of additional service designers is proposed in order to scale up customer-centric and future-oriented innovation culture in both case companies and continuum of the joint venture. Service designers working in pairs could take a more systematic approach to moving from *sensing to seizing,* serving as reliable guides for future services. Aside, continuing the empowering creative service innovation and design culture alignment, revealed in this study, would *disrupt the disruption* and boost the companies in future forerunners. Design thinking and futures thinking can serve as competitive advantages, and scaling up the design capabilities will increase the likelihood of

success with these approaches. Key actor involvement could be encouraged by enabling accessible co-design capabilities, premises and activities.

Academic service research and futures studies can also be utilized to drive dynamic capabilities, empowering students and researchers with means to support actors of both worlds. Additional advantages would also likely be realized if company employee resources were allocated to following and participating in academic discussion of relevant topics such as *service marketing, service innovation, new service development, concept development, service design, foresight design, design thinking, futures thinking, futures studies, service logic, service-dominant logic* and *customer-logic*.

Adopt the service innovation process model as fundamental approach in service innovation and design

The service innovation process model, along with the related service and foresight design methods and tools, provided promising insights of the process's capability as a fundamental and sustaining process model. The modern model is a service-logic-based innovation process, strictly rooted in recent viewpoints and impressions in the service marketing field. The field has specifically defined service design related concepts - *actor, service, service system, service process, service experience*, *customer engagement*, *customer-centricity*, *value* and *value-proposition* – generated through academic debate and research of the service marketing field and transferrable as practical implications used to support business needs. The model is sustainable, coming from a foundation of market research and evolving as new research data appears. Also, the model has adapted the synergy and methods of design thinking and futures thinking. The synergy is scalable, flexible and can be adapted creatively and iteratively during the process. Organizational changes and growing operations models create a favourable context for a new strategic customer-centric and future-oriented service innovation process model at Samlink. Thus, the future-oriented service innovation process model is proposed as the fundamental approach in service innovation process in Samlink and continuum of the joint venture. Additionally, the model would support Samlink's *Vision 2018* objectives and statements.

Define new customer-centric service innovations with the help of the service logic business model canvas

Ojasalo and Ojasalo (2015) have addressed business thinking using recent marketing logic theories: S-DL, SL and C-DL. Their work presents a *Service Logic Business Model Canvas* that helps to model, create, document and define business models grounded in SL. The method takes a holistic and an in-depth approach for both customer and provider worlds, see Table 9.

<table>
<tr>
<td rowspan="2">Key Partners

From our point of view:
• Who are our key partners?
• What are the roles of our partners?
• What resources do we need from our partners?
• How do the partners benefit from the cooperation?
From customer point of view:
• How does the customer experience our partners?
• What kind of partnerships does the customer have and how should they be taken into account?

⑦</td>
<td>Key Resources

From our point of view:
• What skills and knowledge do we need?
• What other material and immaterial resources and tools are required?
From customer point of view:
• What skills and knowledge is required from the customer's side?
• What other customer's material and immaterial resources and tools are required?
⑥</td>
<td rowspan="2">Value Proposition

From our point of view:
• What value are we selling?
• What are the elements of our offering?
• What is unique in our offering?
From customer point of view:
• What value is the customer buying?
• What are the elements of the customer needing?
• Which of the customer's challenges and problems need to be solved?

②</td>
<td>Value Creation

From our point of view:
• How is our offering embedded in the customer's world?
• How can we facilitate the customer to reach their goals?
From customer point of view:
• How does the value emerge in customer's practices (also from mental and emotional experiences)?
• How are customer's long-term benefits accomplished?
③</td>
<td rowspan="2">Customer's World and Desire for Ideal Value

From our point of view:
• How do we get a deep insight and holistic understanding of the customer's world (context, activities, practices, experiences), their future strategies, and their own customers' world?
From customer point of view:
• Why does the customer buy?
• What kind of benefits does the customer desire?
• Functional
• Economic
• Emotional
• Social
• Ethical
• Symbolic
• If there were no limits, what would be the customer's desire for the ideal situation and world?

①</td>
</tr>
<tr>
<td>Mobilizing Resources and Partners

From our point of view:
• How do we coordinate multi-party value creation?
• How do we utilize and develop partners and resources?
From customer point of view:
• How can the customer utilize and develop partners and resources?

⑧</td>
<td>Interaction and co-production

From our point of view:
• How can we support customer co-production and interaction between us and the customer?
From customer point of view:
• What are customer's activities during the use and different use contexts?
• What are the customer's mental models of interacting with us?
④</td>
</tr>
<tr>
<td colspan="3">Cost Structure ⑨
From our point of view:
• What are the costs inherent in our business model?
• What are our other sacrifices?
From customer point of view:
• What costs and other sacrifices are required from the customer?</td>
<td colspan="3">Revenue Streams and Metrics ⑤
From our point of view:
• What is our earnings logic and how is our financial feedback generated?
• How can we apply customer value-based pricing?
• What else valuable do we get other than money?
• What are the key performance metrics of our business success?
From customer point of view:
• For which benefits is the customer actually willing to pay and how?
• What is the financial value to the customer?
• What are the key performance indicators of the customer's business and how are we following them?</td>
</tr>
</table>

Table 9: The Service Logic Business Model Canvas (Ojasalo & Ojasalo 2015, 321)

The customer-provider relationship should originate with customer value and the value-propositions of the provider during the service innovation process. The Service Logic Business Model Canvas is directly linked with the service and foresight design methods presented within the innovation process model, as described by Ojasalo et al. (2014, 2015) (see Table 10).

Blocks of Service Logic Business Model Canvas / Examples of Service Design and Foresight Tools	① Customer's World and Desire for Ideal Value	② Value Proposition	③ Value Creation	④ Interaction and co-production	⑤ Revenue Streams and Metrics	⑥ Key Resources	⑦ Key Partners	⑧ Mobilizing Resources	⑨ Cost Structure
Ethnography, probes	●	●	●	●	●	●	●	●	●
Contextual interviews	●	●	●	●	●	●	●	●	●
Environmental scanning	●	●					●		
Content analysis	●	●							
Delphi	●	●							
Ideation workshops, design games	●	●	●	●	●	●	●	●	●
Trend cards	●	●	●						
Personas	●	●	●	●					
Storytelling	●	●	●	●					
Futures wheel	●	●						●	
Scenarios	●	●	●	●	●	●	●	●	●
Service ecology maps							●	●	
Customer journey maps			●	●	●	●	●		●
Prototypes		●	●	●					
Socio-drama				●		●	●	●	
Visioning		●	●		●			●	
Change paths								●	
Multilevel service design (incl. service blueprint)				●	●	●	●	●	●
Role scripts				●		●	●	●	

Table 10: Service design methods for the Service Logic Business Model Canvas (Ojasalo & Ojasalo 2015, 326)

Both case companies and the joint venture should explore and familiarize themselves with the *Service Logic Business Model Canvas* in two ways. First, the guiding questions suggested by Ojasalo and Ojasalo (2015) (see Table 9) are intended to promote exploration and reflection concerning existing innovations, thereby enabling a greater understanding of the service logic business model thinking. Secondly, the service and foresight design methods presented in Table 10 could be studied using the perspectives of recent service and foresight design literature. Finally, the methods presented and applied in this study are well-suited for application when exploring and adopting customer-centric service culture.

More holistic view into service innovation

The potential of futures thinking in foresight and new service concept design could be explored in full during the joint venture context. To ensure a future-oriented service culture and future-proof successful business, the latent capabilities of futures thinking should be examined in greater detail. For example, crowdsourcing all networked cooperatives, the two case companies with partners in systematic environmental scanning would support anticipation and forecasting.

Kjaer (2014, 71-75) warns companies not to merely scan industry or field-specific changes, instead proposing a focus on multidimensional forecasting approaches which will require a breakdown of organisational silos in order to release collective knowledge and intelligence. Instead of having a few trend assets, the case companies should aim to have a more holistic view, enabling them to sense the environment and spot weak signals from scientific PESTEL dimensions: *politics, economics, society, technology, environment* and *legislation* (Kjaer 2014, 85, 92). Hiltunen (2012, 178) explains how wild cards may surprise unexpectedly, but a broader scope may improve preparation efforts for unexpected events originating in other trend categories by providing analogies and empowering the team to detect latent alternative futures. Tools like Trend Atlas (Kjaer 2014, 73, 74-75, 87-99) and Trend Cartograms (Raymond 2010, 58) would support this development within the joint venture collaboration.

Proposal for companies to make and drive own swells

This thesis bridged relevant theory, service innovation processes, and design methods through empirical study, then provided transferrable practices to inspire large IT companies with solid histories to establish strategic alliances and joint ventures, and empower their latent innovative capabilities. Five service innovation concepts are effective outcomes of proven strengths of this joint venture experiment. The discussed logics and frameworks can be adopted when right people with right mindset meet and collaborate in study related small loosely coupled joint ventures, and scaled up. Embracing the presented service and foresight design capabilities can place these companies with the start-up cultures that are currently rocking the boats.

Empowered people in work cultures and joint ventures can then decide for themselves which futures will appear: *push of the present, weight of history* and *pull of the future* (Inayatullah 2008, 8). I encourage you to start making the swells instead of churning in them.

References

van Alstyne, G. 2010. How we learned to pluralize the future: foresight scenarios as design thinking. In: Shamiyeh, M. (ed.) Creating desired futures - How design thinking innovates business. Basel, Switzerland: Birkhäuser. 69-91.

Berger, T. M.-M., Ernst & Young. 2012. IPSAS Explained: A Summary of International Public Sector Accounting Standards (2nd Edition). West Sussex, UK: John Wiley & Sons.

Blomkvist, J. 2014. Representing Future Situations of Service: Prototyping in Service Design. PhD. Linköping, Sweden: Linköping University Electorinic Press.

Campbell, S. & Liteman, M. 2003. Retreats That Work: Designing and Conducting Effective Offsites for Groups. California, USA: Pfeiffer.

Chandler, J. & Lusch, R. 2015. Service Systems: A Broadened Framework and Research Agenda on Value Propositions, Engagement, and Service Experience. Journal of Service Research, 18, 6-22.

Curedale, R. 2012. Design Methods 2: 200 more ways to apply design thinking. California, USA: Design Community College.

Curedale, R. 2013. Design Methods 1: 200 ways to apply design thinking. California, USA: Design Community College.

Drucker, P. 1980. Managing in Turbulent Times. New York, US: Harper Collins.

van der Duin, P. 2006. Qualitative futures research for innovation. Delft, Netherlands: Eburon Academic Publishers.

van der Duin, P. & den Hartigh, E. 2009. Keeping the balance: exploring the link of futures research with innovation and strategy processes. Technology Analysis & Strategic Management, 3, 333–351.

Edvardsson, B., Enquist, B. & Johnston, R. 2005. Cocreating Customer Value Through Hyperreality in the Prepurchase Service Experience. Journal of Service Research, 2, 149-161.

Edvardsson, B., Gustafsson, A., Johnson, M. & Sandén, B. 2002. New Service Development and Innovation in the New Economy. Lund, Sweden: Studentlitteratur AB.

Edvardsson, B., Gustafsson, A. & Roos, I. 2005. Service portraits in service research: a critical review. Internation Journal of Service Industry Management, 1, 107-121.

Edvardsson, B. & Tronvoll, B. 2013. A new conceptualization of service innovation grounded in S-D logic and service systems. International Journal of Quality and Service Sciences, 5, 19-31.

Fisk, R. & Grove, S. 2010. The Evolution and Future of Service: Building and Broadening a Multipldisciplinary Field. In: Maglio, P. & Kieliszewski, C. & Spohrer, J. (eds.) Handbook of Service Science. New York, United States: Springer Science+Business Media.

Fitzsimmons, J. & Fitzsimmons, M. 2000. New Service Development: Creating Memorable Experiences. London, UK: Sage Publications.

Gray et al. 2010. Game Storming: A Playbook for Innovators, rulebrakers, and changemakers. California, USA: O'Reilly Media.

Goldstein, S., Johnston, R., Duffy, J. & Rao, J., 2002. The service concept: the missing link in service design research? Journal of Operations Management 20, 121-134.

Grönroos, C. 2006. Adopting a service logic for marketing. California, United States: Sage Publications. Marketing Theory, 6, 317-333.

Grönroos, C. & Gummerus, J. 2014. The service revolution and its marketing implications: service logic versus service-dominant logic. Managing Service Quality, 3, 206-229.

Han, Q. 2010. Practices and principles in Service Design. PhD. University of Dundee.

Heinonen, K., Strandvik, T. & Mickelsson, K.-J. 2010. A customer-dominant logic of service. Journal of Service Management. 29, 531-548.

Heinonen, K. & Strandvik, T. 2015. Customer-dominant logic: foundations and implications. Journal of Services Marketing, 29, 472-484.

Hiltunen, E. 2013. Foresight and innovation: how companies are coping with the future. Hampshire, UK: Palgrave Macmillan.

Hiltunen, E. 2012. Matkaopas tulevaisuuteen. Helsinki, Finland: Talentum Media Oy.

Inayatullah, S. 2008. Six pillars: futures thinking for transforming. Foresight, 1, 4-21.

Johnston R., Clark G. & Shulver M. 2012. Service operations management: Improving Service Delivery. Edinburgh, UK: Pearson Education Limited.

Kimbell, L. 2014. The service innovation handbook: action-oriented creative thinking toolkit for service organizations. Amsterdam, Netherlands: BIS Publishers.

Kjaer, A. 2014. The trend management toolkit: a practical guide to the future. Hampshire, UK: Palgrave Macmillan.

Kumar, V. 2013. 101 design methods: a structured approach for driving innovation in in your organization. New Jersey, US: John Wiley & Sons.

Kuosa, T. 2012. The evolution of strategic foresight: navigating public policy making. Surrey, England: Gower Applied Business Research.

Liedtka, J., King, A. & Bennett, K. 2013. Solving problems with Design Thinking. United States, New York: Columbia University Press.

Lusch, R., Vargo, S. & Tanniru, M. 2010. Service, value networks and learning. Journal of Academic Marketing Science, 38, 19-31.

Lusch, R. & Vargo, S. 2014. Service-Dominant Logic: Premises, perspectives and possibilities. Cambridge, UK: Cambridge University Press.

Lüftenegger, E. 2014. Service-Dominant Business Design. Eindhoven, Netherlands: Technische Universiteit Eindhoven.

Martin, B. & Hanington, B. 2012. Universal Methods of Design. Beverly, US: Rockport Publishers.

Michlewski, K. 2010. Frameworks, Artefacts, Designers – Three vectors of Design. In: Shamiyeh, M. (ed.) Creating desired futures - How design thinking innovates business, Basel, Switzerland: Birkhäuser. 275-293.

Miettinen, S. 2012. Discussions on change, value and methods. In: Miettinen, S. & Valtonen, A. (eds.) Service Design with theory – discussions on change, value and methods. Vantaa, Finland: HansaBook. 6-10.

Moritz, S. 2005. Service design - practical access to evolving field. Köln, Germany: International School of Design.

Ojasalo, K., Koskelo, M. & Nousiainen, A. 2014 (forthcoming). Foresight and service design boosting dynamic capabilities in service innovation. In: Agarwal, R., Green, R. Selen, W. & Roos, G. (eds.) The Handbook of Service Innovation. London, UK: Springer- Verlag.

Ojasalo, K., Koskelo, M. & Nousiainen, A. 2015. Foresight and service design boosting dynamic capabilities in service innovation. In: Agarwal, R., Green, R. Selen, W. & Roos, G. (eds.) The Handbook of Service Innovation. London, UK: Springer-Verlag. 193-212.

Ojasalo, K., Moilanen, T. & Ritalahti, J. 2014. Kehittämistyön menetelmät: uudenlaista osaamista liiketoimintaan. Helsinki, Finland: Sanoma Pro Oy.

Ojasalo, K. & Ojasalo, J. 2015. Adapting Business Model Thinking to Service Logic: An Empirical Study on Developing a Service Design Tool. In: Gummerus, J. & von Koskull, C. (eds.) The Nordic School – Service Marketing And Management For The Future. Helsinki, Finland: Hanken School of Economics. 309-333.

Palmer, A. & Cole, C. 1995. Services Marketing: Principles and Practice. Prentice Hall College Div.

Prahalad, C. K. & Ramaswamy, V. 2004. The future of competition: co-creating unique value with customers. Boston, United States: Harvard Business School Publishing.

Randhawa, K. & Scerri, M. 2015. Service Innovation: A review of the literature. Foresight and service design boosting dynamic capabilities in service innovation. In: Agarwal, R., Green, R. Selen, W. & Roos, G. (eds.) The Handbook of Service Innovation. London, UK: Springer-Verlag. 27-43.

Raymond, M. 2010. The trend forecaster’s handbook. London, UK: Laurence King Publishing.

Sanders, E. & Stappers, P. 2013. Convivial Toolbox: generative design research for the fuzzy front end. Amsterdam, Netherlands: BIS Publishers.

Stickdorn & Schneider. 2013. This is Service Design Thinking. The Netherlands, Amsterdam: BIS Publishers.

Vargo, S. & Lusch, R. 2004a. The Four Service Marketing Myths: Remnants of a Goods-Based, Manufacturing Model. Journal of Service Research 2004, 6, 324–335.

Vargo, S. & Lusch, R. 2004b. Evolving to a New Dominant Logic for Marketing. Journal of Marketing 2004, 68, 1–17.

Vargo, S. & Lusch, R. 2006. Service-dominant logic: What It Is, What It Is Not, What It Might Be. In: The Service-Dominant Logic of Marketing: Dialog, Debate and Directions, (eds) Lusch, R. & Vargo, S., 43–56, M.E. Sharpe Inc.

Vargo, S. & Lusch, R. 2008a. Service-dominant logic: continuing the evolution. Journal of the Academy of Marketing Science, 36, 1-10.

Vargo, S. & Lusch, R. 2008b. From goods to service(s): Divergences and convergences of logics. Industrial Marketing Management, 37, 254–259.

Vargo, S. & Lusch, R. 2014. Inversions of service-dominant logic. Marketing Theory, 14, 239-248.

Vargo, S., Maglio, P. & Akaka, M. 2008. On value and value co-creation: A service systems and service logic perspective. European Management Journal, 26, 145–152.

Wallace, R. 2004. Strategic Partnerships: An Entrepreneur's Guide to Joint Ventures and Alliances. Chicago, USA: Dearborn Trade.

Wilson, A., Zeithaml, M. & Gremler, D. 2012. Services Marketing: Integrating Customer Focus Across the Firm. Berkshire, United Kindom: McGraw-Hill Education.

Electronic sources

Carleton, T., Cockayne, W. & Tahvanainen, A. 2013. Playbook for strategic foresight and innovation. Finland: Tekes & Lahti School of Innovation & Lappeenranta University of Tehcnology. Accessed 4.11.2015. http://www.lut.fi/documents/27578/270423/playbook-for-strategic-foresight-and-innovation.pdf

Fujitsu Finland. 2015. Fujitsu is the leading ICT services and hardware provider in Finland. Accessed 21.10.2015. http://www.fujitsu.com/fi/english/about/

Fujitsu Finland. 2015. Services. Accessed 21.10.2015. http://www.fujitsu.com/fi/english/services/

Human-Centered Design Toolkit. IDEO. Accessed 4.11.2015. http://www.ideo.com/work/human-centered-design-toolkit/ https://hcd-connect-production.s3.amazonaws.com/toolkit/en/download/ideo_hcd_toolkit_final_cc_superlr.pdf

Lüftenegger, E. & Grefen, P. & Weisleder, C. 2012. The Service Dominant Strategy Canvas: Defining and Visualizing a Service Dominant Strategy Through the Traditional Strategic Lens. Eindhoven, The Netherlands. Accessed 21.11.2015. http://cms.ieis.tue.nl/Beta/Files/WorkingPapers/wp_383.pdf

Rehn, A. & Lindkvist, M. 2013. Trendspotting – the basics. Bloomington, United States: Booktango. Accessed 4.11.2015. http://ge.tt/api/1/files/44nnNtC1/8/blob?download

Samlink. 2015a. Samlink in brief. Accessed 21.10.2015. http://www.samlink.fi/en/Me/Samlink-in-Brief/

Samlink. 2015b. Key figures. Accessed 21.10.2015. http://www.samlink.fi/en/Me/Samlink-in-Brief/Avainluvut/

Samlink. 2015c. Owners. Accessed 21.10.2015. http://www.samlink.fi/en/Me/Samlink-in-Brief/Omistajat/

Samlink. 2015d. Samlink lyhyesti. Accessed 21.10.2015. http://www.samlink.fi/Me/Samlink-lyhyesti/

Tschimmel, K. 2012. Design Thinking as an effective Toolkit for Innovation. In: Proceedings of the XXIII ISPIM Conference: Action for Innovation: Innovating from Experience. Barcelona , Spain. Accessed 4.11.2015.
http://www.academia.edu/1906407/Design_Thinking_as_an_effective_Toolkit_for_Innovation

Figures

Tables

Appendixes

Appendix 1: Key milestones within the empirical study

Milestone	Actions, objectives and participants
Jan 30th, 2014	Initial meeting. Samlink's company presentation, share understanding of Samlink's, history, present and plausible futures of banking services **Fujitsu Finland participants:** Sales Manager; Director, Competitive Intelligence **Samlink participants:** Enterprise Architect; Head of Architechture
March 3rd, 2014	Kick-off meeting Agree about series of works, sought business direction, process, workshops, participants, schedule, integration into business, business boundaries. History, present day and a few futures' scenarios of financial services. Pretask brief. **Fujitsu Finland participants:** CTO and Head of New Business Development; Director, Competitive Intelligence; Sales Manager; Head of Marketing and Solutions; Director; Chief Architect; Chief Architect; Service Development Manager; Development Manager **Samlink participants:** Enterprise Architect; Head of Architecture; Service Designer
March 13th, 2014	Creating business insights with Samlink's top managers **Samlink participants:** Executive Vice President & Head of Customers and Service Developlement; Head of Solutions Business; Head of Resourcing and Process Development; Service Designer
March 28th, 2014	Samlink's business state brief (SWOT / mind map + video brief). **Fujitsu Finland participants:** Director, Competitive Intelligence; CTO and Head of New Business Development; Head of Marketing and Solutions; Sales Manager; Chief Architect; Solution Consultant **Samlink participants:** Head of Architecture; Enterprise Architect; Service Designer
March 28th, 2014	Forecasting alternative realistic and idealistic scenarios **Fujitsu Finland participants:** Director, Competitive Intelligence; CTO and Head of New Business Development; Head of Marketing and Solutions; Sales Manager; Chief Architect; Solution Consultant **Samlink participants:** Head of Architecture; Enterprise Architect; Service Designer
April 23th, 2014	Forecasting alternative realistic and idealistic scenarios **Fujitsu Finland participants:** Director, Competitive Intelligence; CTO and Head of New Business Development; Head of Marketing and Solutions; Director **Samlink participants:** Head of Architecture; Enterprise Architect
May 7th, 2014	Choosing the most probable and desirable futures **Fujitsu Finland participants:** CTO and Head of New Business Development; Head of Marketing and Solutions **Samlink participants:** Head of Architecture; Enterprise Architect
May 15th, 2014	Designing foresights with service posters:

	Creating initial service system drafts
	Fujitsu Finland participants: Director, Competitive Intelligence; CTO and Head of New Business Development; Head of Marketing and Solutions; Director **Samlink participants:** Head of Architecture; Enterprise Architect; Service Designer
May 16th, 2014	Designing foresights with service posters: Creating initial service system and poster drafts Choosing and merging the best service concept attributes
	Fujitsu Finland participants: Director, Competitive Intelligence; CTO and Head of New Business Development; Head of Marketing and Solutions; Director **Samlink participants:** Head of Architecture; Enterprise Architect; Service Designer
May 22nd-26th, 2014	Designing foresights with service posters: Illustrating service posters
	Samlink participants: Service Designer; Enterprise Architect **Other participants**: Freelance Artist
Jan 22nd-30th, 2015	Designing and communicating customer journeys with strip cartoons
	Jan 22nd, 2015: Writing and iterating screeplays for strip cartoons **Jan 28th, 2015:** Creating a shared understading of written screenplays for strip cartoons with artist. Preparing to still photo shooting session by sketching visualized storyboards. **Jan 29th, 2015:** Preparing to still photo shooting session by sketching visualized storyboards. **Feb 5th, 2015:** Shooting still photos at Samlink with recruited models on stage. Tracing comic stylish strips for the strip cartoons. **Feb 6th, 2015:** Tracing comic stylish strips for the strip cartoons. Designing the final strip cartoons. Combining all the stories into comic book.
	Samlink participants: Service Designer; Ten casted volunteer models for photo shootings **Other participants:** Freelance Artist
Feb 11th, 2015	Workshop with cooperative 1: Experiencing the seamless future banking service encounter Communicating service systems by pitching the posters Co-designing the futures using the design the box method
	Cooperative 1 participants: Development Manager; Product Manager; Product Manager; Product Manager; Head of Business Development; Development Director; CIO; ICT Controller; Head of Retail Banking, HR and Marketing
	Fujitsu Finland participants: Director, Competitive Intelligence; CTO and Head of New Business Development **Samlink participants:** Enterprise Architect; Service Designer; Marketing Specialist; Software Trainer; Account Director; Account Manager
March 27th, 2015	Workshop with cooperative 2: Experiencing the seamless future banking service encounter Communicating service systems by pitching the posters Co-designing the futures using the design the box method

	Cooperative 2 participants: Development Director; Development Director; CIO; Development Manager; Marketing Manager; Back Office Manager
	Fujitsu Finland participants: Director, Competitive Intelligence; CTO and Head of New Business Development; LEAN Consultancy Development and Conseptation **Samlink participants:** Enterprise Architect; Service Designer; Marketing Specialist; Software Trainer; Account Manager
April 28th, 2015	Drafting sales proposal for cooperative 2 with Fujitsu Finland.
	Samlink participants: Service Designer; Enterprise Architect **Fujitsu Finland participants:** Lead Consultant – Field Innovation, LEAN
May 22nd, 2015	Joint sales proposal walkthrough with Fujitsu and a cooperative. Placing next steps to find a path to start designing the desired service concept in coopertive's business, strategy, brand and service system.
	Cooperative 2 participants: Development Director; CIO
	Samlink participants: Service Designer **Fujitsu Finland participants:** Lead Consultant – Field Innovation, LEAN; Service Development Manager
June 29th, 2015	Shaping another joint proposal for cooperative 2 to collect understanding of the cooperative's work culture, employees' pain and gains.
	Samlink participants: Service Designer **Fujitsu Finland participants:** Lead Consultant – Field Innovation, LEAN; Service Development Manager

Appendix 2: The market trends

Business process outsourcing	2008
Falling product lifecycles	2008
International expansion	2008
Economic downturn	2009
Social networking	2009
Consumer knowledge	2009
Energy efficiency	2010
Consolidation	2010
Consumer generated value	2010
Unstructured data explosion	2010
Health thrives	2010
Conservation	2010
Business insight	2010
Consumer self-service	2010
Digital divide	2010
Experiences over products	2010
Yield Mastery	2010
Commoditization	2011
Complex supply chains	2011
Ecosystems	2011
Climate legislation	2011
Management over distance	2011
Women on the rise	2011
Fast-Nation Chasing	2011
Regulatory compliance	2011
Information over process	2011
Changing global order	2012
Demand of origin	2012
Consumerization	2012
Green audits	2012
Jurisdictional Arbitrage	2012
Consumer protection	2012
Loyalty to social media	2012
Crowdsourcing	2012
Life's digital shadow	2012
Grey society	2013
Value Centricity	2013
From mass to micro markets	2013
Augmented consumption	2013
End of life systems	2013
New skills and roles	2013
Downshifting	2013
Economic Nationalism	2014
Behavioral Economics	2014
Working hours	2014
Patterns of mobility	2014
Rise of the third sector	2014
Digital natives	2014
Urbanization	2015
Light touch contracts	2015
Volatility Opportunism	2015
Automation	2015
Innovation beyond boundaries	2015
Corporate responsibility	2015
Business Model Innovation	2016
Social dimensions	2016
Ethical values	2016
Traditional experiences	2016
Open innovation	2016
Service brokering	2017
Changing ownership of IP	2017
Sustainability and Dematerialization	2017
Distributed production	2017
Environmental tension	2017
Trust relationships	2017
New styles of working	2017
Global middleclass set to double	2019

Appendix 3: The finance trends

Continuous customer insight	2010	**Powerful customer**	2014
Standard operating model	2010	**Swipe to buy**	2014
Flexible labour management	2010	**Mobile-only banking**	2014
Experience integration platform	2010	**Payment disruption**	2014
Redesign of self-service kiosks	2010	**Payment innovations**	2014
Increasing consumer knowledge	2010	**Sales through networks**	2014
Channel integration	2011	**Mobile payment**	2015
Socially responsible business	2011	**Nowcasting**	2015
Customer loyalty	2011	**Convenience banking**	2015
Neighborhood shopping	2011	**Hi-tech 24h bank**	2015
Digital footprints	2012	**Multiple touch points**	2015
DIY finance	2012	**Traditional branches obsolete**	2015
Sales branch of the future	2012	**Face-to-face journeys**	2015
Mobile workforce	2012	**Branch apps cloud**	2016
Cash handling	2012	**Gamification**	2016
Mobile banking / payments	2012	**Card wallet services**	2016
Consumer self-service	2012	**Financial social networks**	2016
Service packaging	2012	**Omni-channel**	2016
Bank diversification	2013	**Geomarketing**	2016
Crowdfunding	2013	**Process centricity**	2017
Branch diversification	2013	**Exploit international opportunities**	2017
P2P currencies	2013	**Banking together**	2017
Customer cre8s	2013	**Loss prevention**	2017
Biometric customer ID	2013	**Share of life**	2017
Loyalty programs	2013	**Behavioural economics**	2018
Non-traditional and non-banks	2013	**Behavioural economics**	2018
End of life EUS migrations	2013	**Cashless society**	2018
Loyalty to social media not product brands	2014	**Service robots**	2019
Battleground redefined	2014		

Appendix 4: The technology trends

Service oriented architecture	2008	**Open security**	2013
Records management	2009	**Machine to machine services**	2013
Open source	2010	**Near field communication**	2013
Virtualisation	2010	**Consistent experience**	2013
Standardization	2010	**Fabric-based infrastructure**	2013
Microblogging	2010	**Mobile Business**	2013
Biometrics	2010	**Vertical SaaS**	2013
Unified communications	2010	**End of PC era...**	2013
Software as a Service	2010	**Big Data**	2013
Identity management	2010	**Search based apps**	2013
Offshoring	2010	**Virtual worlds**	2013
Continuous improvement	2010	**Vertical PaaS**	2013
Collaboration	2010	**Single source**	2013
Horisontal scale	2010	**In-memory data warehousing**	2013
Social interaction	2010	**Cloud bursting**	2013
Rich Internet apps	2010	**Hosted application stores**	2013
Green IT	2010	**Digital interaction**	2013
Innovation	2010	**Autonomic systems**	2013
Shared services	2010	**3D Printing**	2014
Lean	2010	**Multicloud provider**	2014
Location aware applications	2010	**Internet of Things Optimization**	2014
Business process modelling	2010	**Context and location awareness**	2014
Infrastructure as a Service	2011	**Outcome based services**	2014
Smartphones become pervasive	2011	**Pervasive connectivity**	2014
Hosted virtual desktops	2011	**Interoperable clouds**	2014
Mashups	2011	**Unstructured process tools**	2014
Rich content	2011	**Predictive Analytics**	2014
Global datacenters	2011	**End-user managed personal technology**	2014
Visualization	2011	**Service Digitalization**	2014
Legacy modernization	2011	**Activity as a Service**	2014
Platform as a Service	2011	**Gamification**	2014
Dynamic transformation	2011	**Resource crowdsourcing**	2014
Rapid deployment	2011	**Personal devices**	2014
Desktop as a service	2011	**Business Process as a Service**	2014
Self service	2011	**Information-centric security**	2014
Service catalogue	2011	**Intelligent documents**	2015
Linking objects to web	2011	**Internet of Things**	2015
Business intelligence	2011	**Business services, not technology services**	2015
Private clouds	2011	**Business transaction aware**	2015
Carbon calculators	2012	**Environment connectivity**	2015
Software appliances	2012	**Internet of things**	2015
Small media tablets	2012	**Audio and Video Analytics**	2015
Last mile apps	2012	**Social Business**	2015

Application IaaS	2012	**Service hub**	2015
New form factors	2012	**Content as a Service**	2015
Offline web apps	2012	**Deperimeterization**	2015
Platform as a Service	2012	**Nano electronics**	2015
Media Tablets	2012	**Near Field Communication**	2015
Enterprise apps stores	2012	**Dynamic Business Process Management**	2016
Sensors and RFID	2012	**3D printing**	2016
Cloud services	2012	**Living service**	2016
Dynamic provisioning	2012	**Information as Strategy**	2016
Network technologies	2012	**Natural-Language Question Answering**	2016
NoSQL	2012	**Servilce levels determined by people and**	2016
Cloud auditor	2012	**Automated metadata-packaging**	2016
Auto apps	2012	**Augmented Reality**	2016
Global virtualized service	2012	**Semantic web**	2016
Social business software	2012	**Next-Generation User Interfaces**	2017
Automated personal assistants	2012	**Crowdservicing**	2017
Consumer channels	2012	**Roboservices**	2017
Cloud business enablement	2012	**Robotics**	2017
Big data analytics	2012	**Application evolution**	2017
Utility service	2012	**Convergence**	2018
Cloud carrier	2013	**Asymmetric Customer Data Warfare**	2018
Self-services	2013	**Mobile Robotics**	2018
Real-time insight	2013	**Exascale computing**	2018
In-Memory Computing	2013	**Human singularity**	2018

Appendix 5: Service concept and poster: Pleasant banking encounter

The *pleasant banking encounter* bases on evidencing trends that banks are transforming more lean and flexible. Traditional banking is becoming obsolete. However, face-to-face interactions will be still essential keep and evolve customer relationship. Grey Society in Finland is trending as well. The elderly citizens are accustomed to experience personal face-to-face customer service. In future, services and products will be integrated and packaged together as seamless service experience. A proof and analogy for this trend is shop-in-shop trend.

The idea within the *pleasant banking encounter* service concept is to provide human-centric banking service in a homely rendezvous meeting-point in collaboration with other service providers like post office, cafeterias and restaurants. The purpose is to provide seamless human-centric service experience across different service fields to fulfil customer's need. A receptionist greets customer warmly and makes sure the he or she feels welcome. Familiar bank teller takes care of bank customer relationship and customer's financial needs like used to. However, banking service encounter is provided remotely through safe video conversation. Alternatively the ability to make easy video conversation is provided for everyone from everywhere through desirable low-tech devices. Moreover, the receptionist helps and guides with the devices if required.

Proposed customer value

- Personal service in social servicescape as seamless service experience
- Traditional banking value propositions provided in better banking hours
- Low technology learning curve guarantees desirable banking experience
- Familiar bank teller serves right

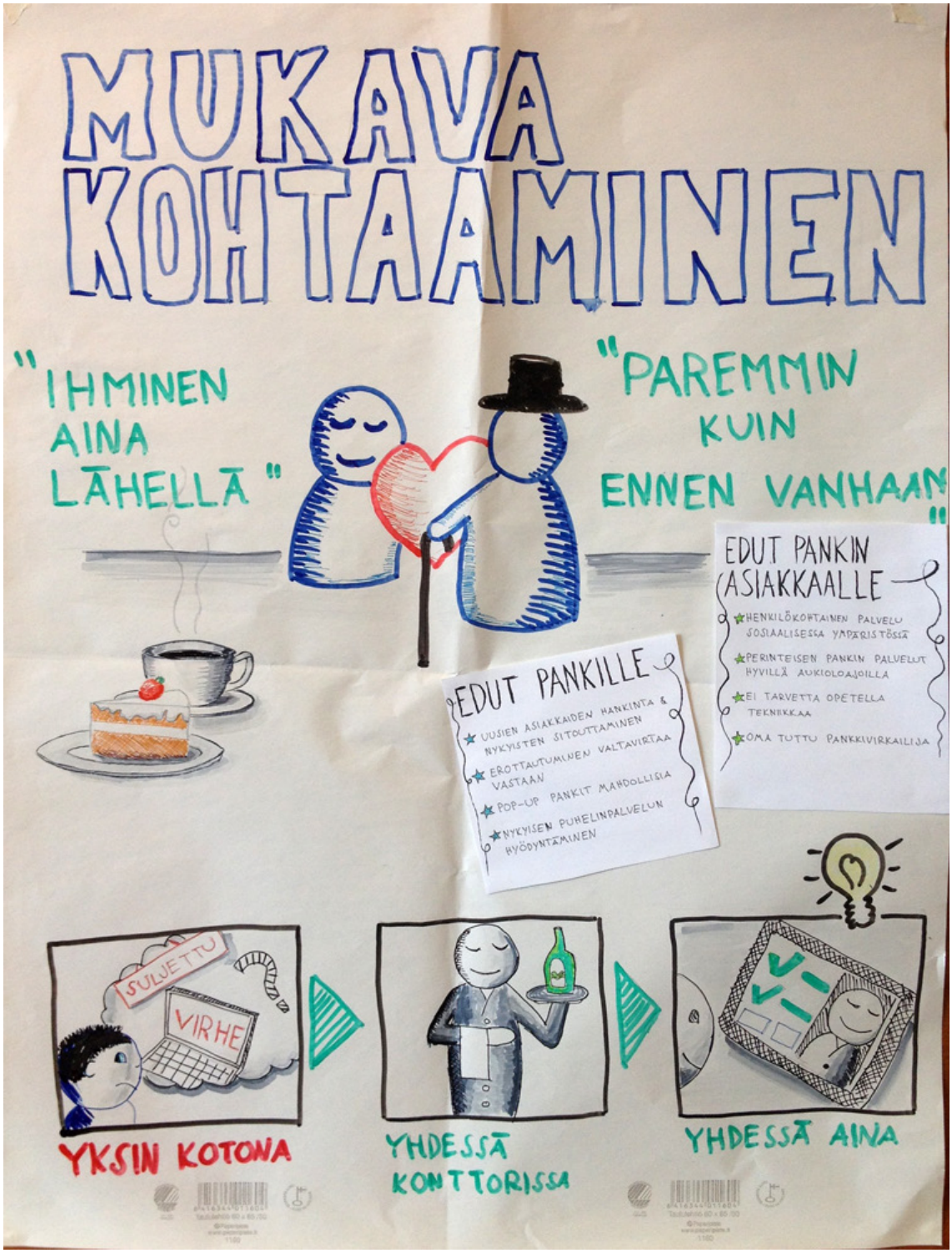
Proposed bank value

- Rethinking bank servicescapes is an opportunity to engage new customers and commit with existing customers in modern way
- Bank can separate itself positively from mainstream banks
- Pop-up banks can be put into practise with this concept
- Enables bank tellers to work remotely how they prefer
- New business model: revenues are generated through partner service providers and new products to that provide seamless experience
- Cost-savings are gained through more efficient property usage

Proposed Samlink value

- Low price IT-investments

- Existing core bank systems are still valid
- The IT service can be productized



Appendix 6: Service concept and poster: Crowdfunding

Crowdfunding is rather new alternative to collect gratuitous and remuneration funding directly and collectively from individuals, organizations and companies instead of traditional finance markets. The crowdfunding markets are foreseen to grow significantly in future. Peer-to-peer lending and borrowing is also trending in social media. Powerful customers seek to maximize buying power. Crowdsourcing empowers people to perform activities that they perceive collectively valuable.

However, traditional retail banks have not yet seized crowdfunding in their domain because of strict regulations. Thus, crowdfunding trend is in early phase and have reach just the early adopters. Trust and loyalty are traditional banks' unique competitive advantage that they can creatively use to enter crowdfunding markets with their new services.

The idea in crowdfunding service concept is that banks provide an alternative funding instrument and service for enthusiastic individuals and entrepreneurs. Bank facilitates funding and connects funders with funding seekers who find the subject valuable and meaningful. Thus, bank helps customers to enter into new crowdfunding world with loyal bank tellers and experts.

Proposed customer value

- Low threshold to collect funding from organisations, companies and individuals that find the subject meaningful.
- An opportunity to network and create new relationships with funders and partners through the ecosystem.

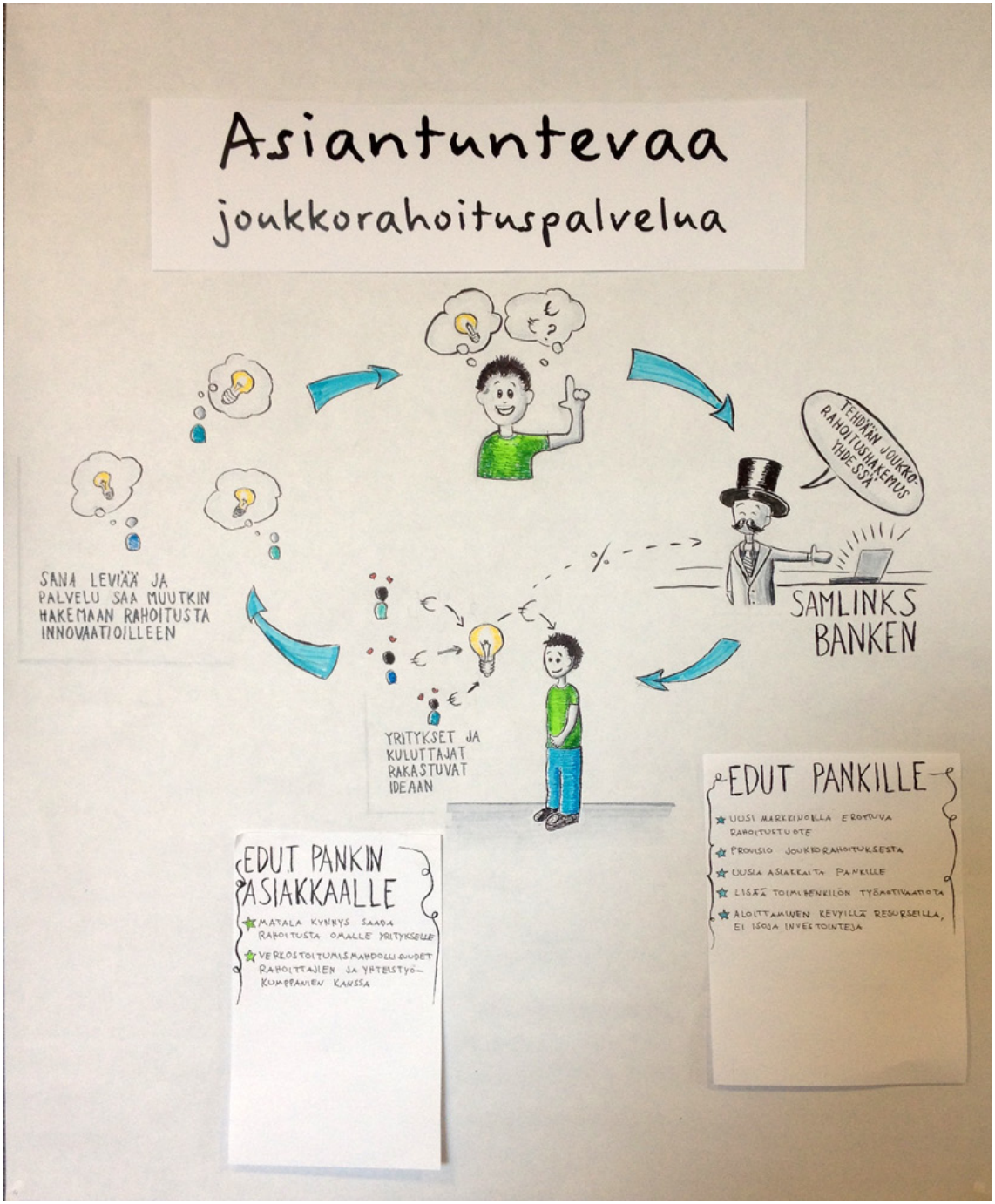
Proposed bank value

- New funding instrument on finance markets
- Bank receives a provision per each transaction
- Opportunity to engage new customers
- Creates bank tellers workday experience more desirable and motivates
- Financing risk free
- Enter crowdfunding markets with minor investments

Proposed Samlink value

- Opportunity to design and to develop integrative platform for various crowdfunding platforms
- Opportunity to promote expertise for the cooperatives and prospect new clients

Service concept and poster: Crowdfunding (page 2/2)



Appendix 7: Service concept and poster: Crowdinvesting

The trends behind the crowdinvesting service concept are very similar to crowdfunding. In crowdfunding customer looks for alternative funding. However, in crowdinvesting customer (investor) invests in such subjects. Thus, the concepts are two sides of the same coin.

The idea in crowdinvesting service concept is that banks provide alternative funding instruments for enthusiastic investors who want to fund subjects like innovative projects, entrepreneurs, companies and organisations that the crowd perceive valuable. Here, bank provides interesting and meaningful pre-analysed investment subjects that investors are keen to support financially. Banking tellers and experts guide investors to find the meaningful investment subjects.

Proposed investor value

- Possibility to support and invest in personally meaningful subjects, organisations, companies and individuals
- New funding instrument on finance markets
- Opportunity to meet fund-seekers in investing events and collaborate

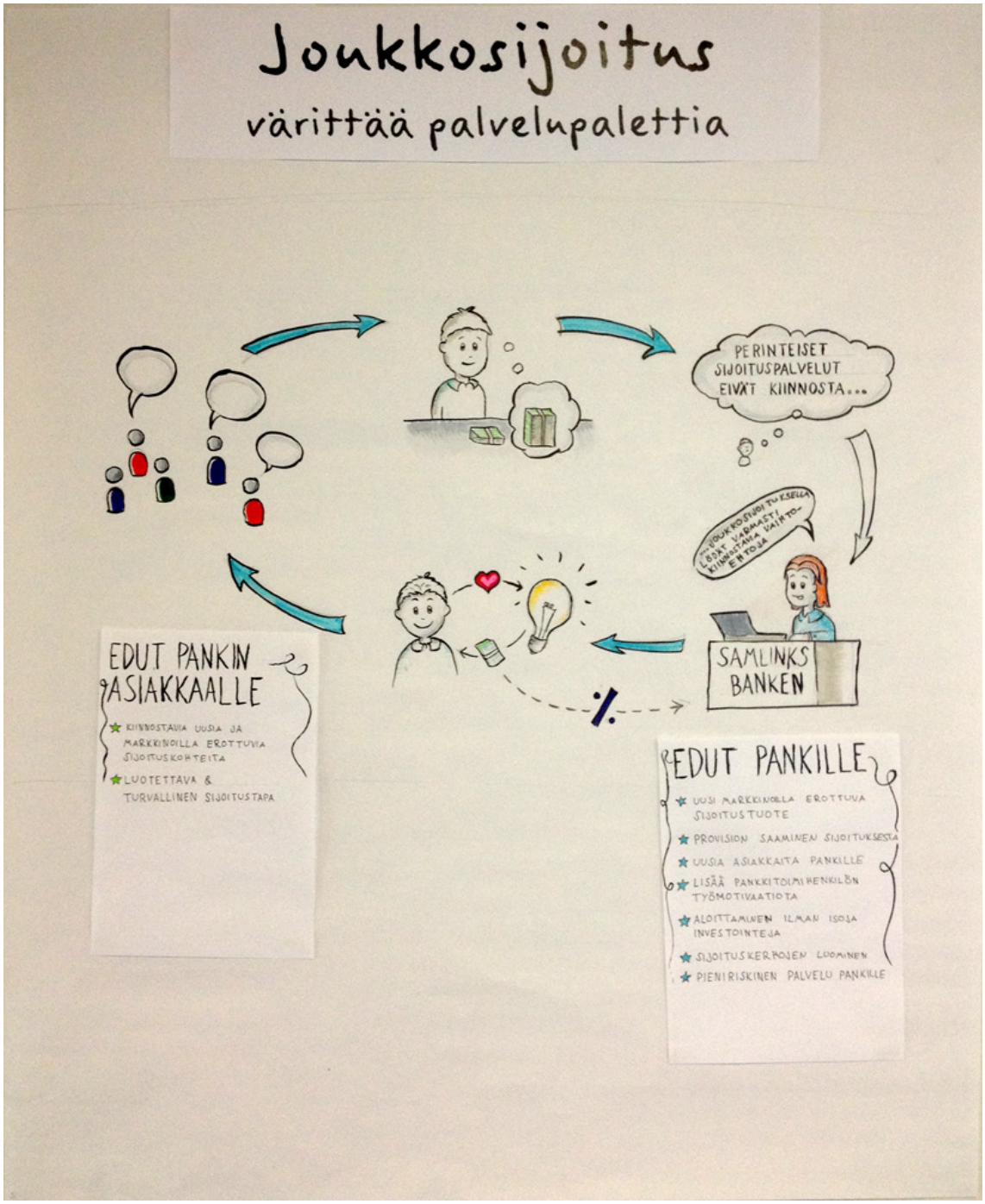
Proposed bank value

- Provision per investment
- Opportunity to engage new customers
- Creates bank tellers workday experience more desirable and motivates
- Organizing investing clubs and events helps partners to collaborate
- Enter crowdinvesting markets with minor investments

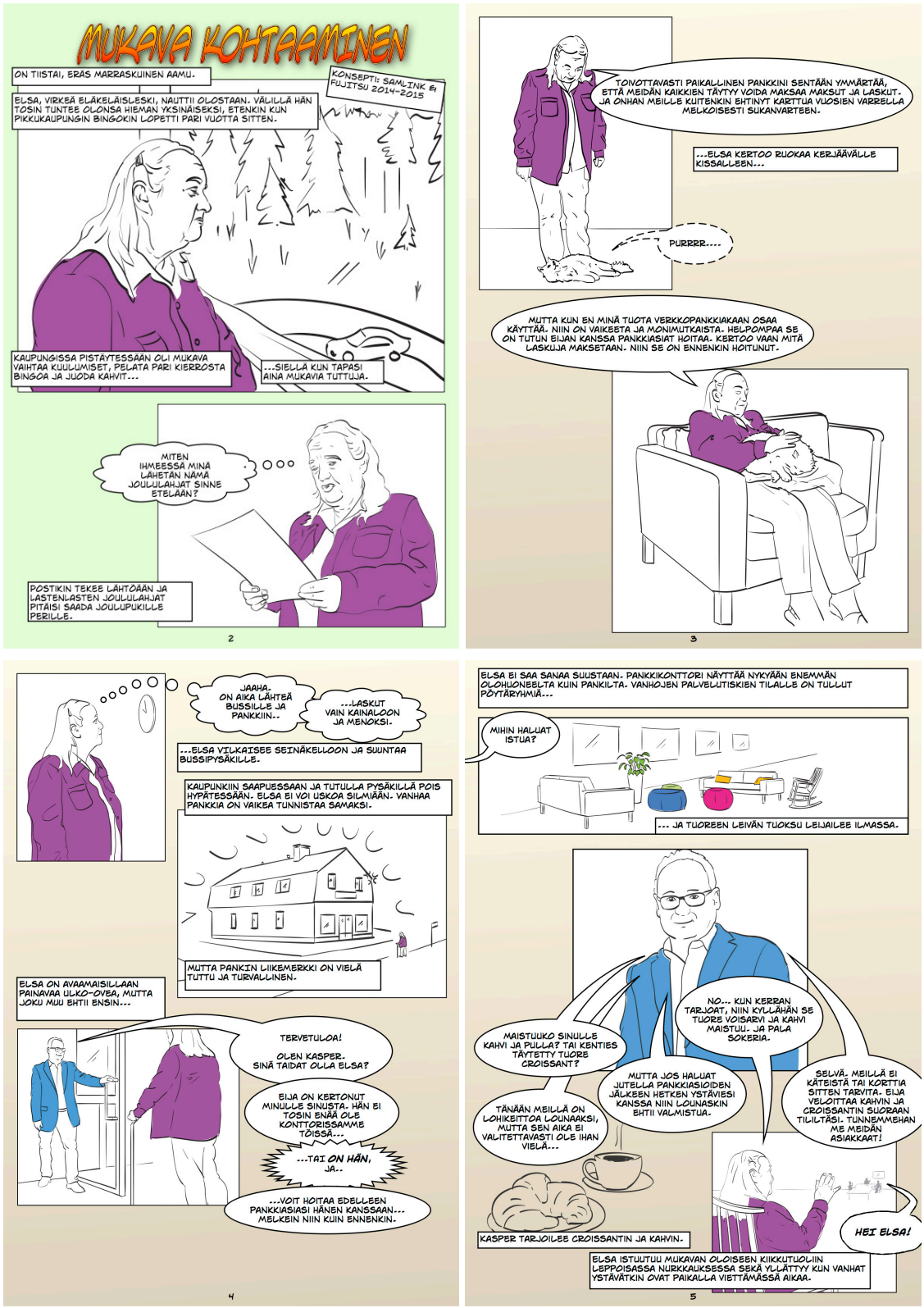
Proposed Samlink value

- Opportunity to design and develop integrative crowdfunding platform
- Can be integrated in other provided services

Service concept and poster: Crowdinvesting (page 2/2)

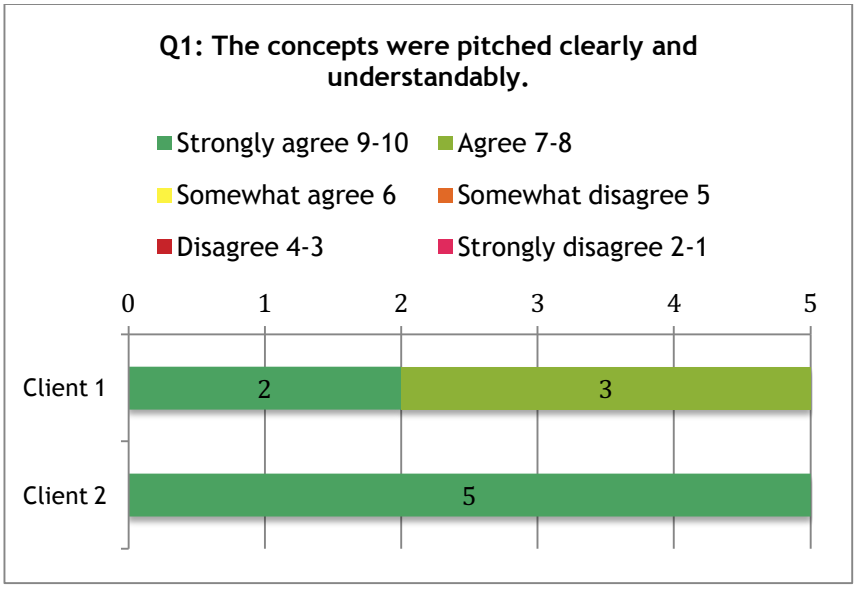


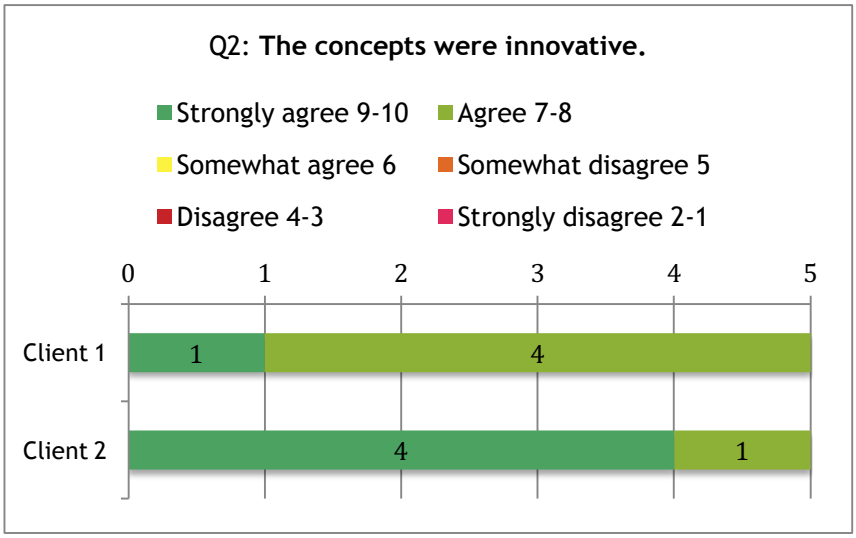
Appendix 8: Cartoon strip of the pleasant banking encounter service concept (in Finnish)

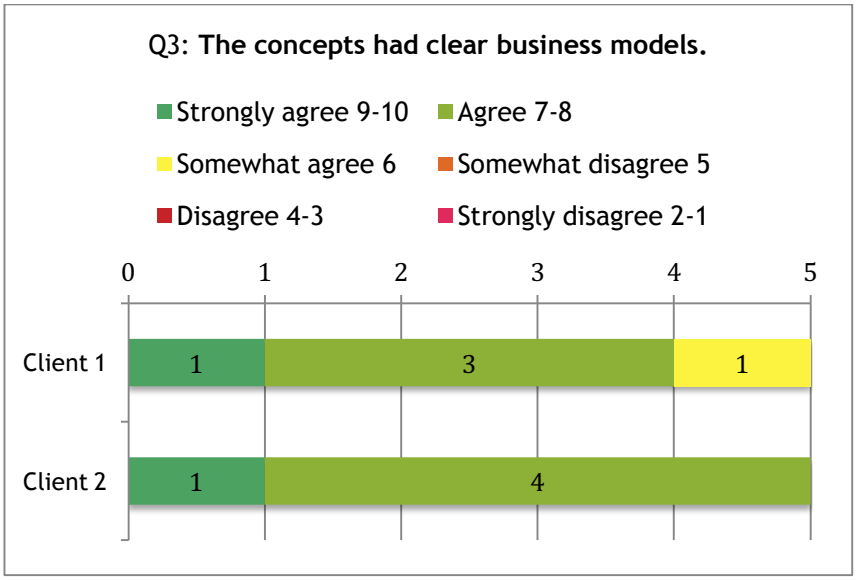


Cartoon strip of the pleasant banking encounter service concept (page 2/2)

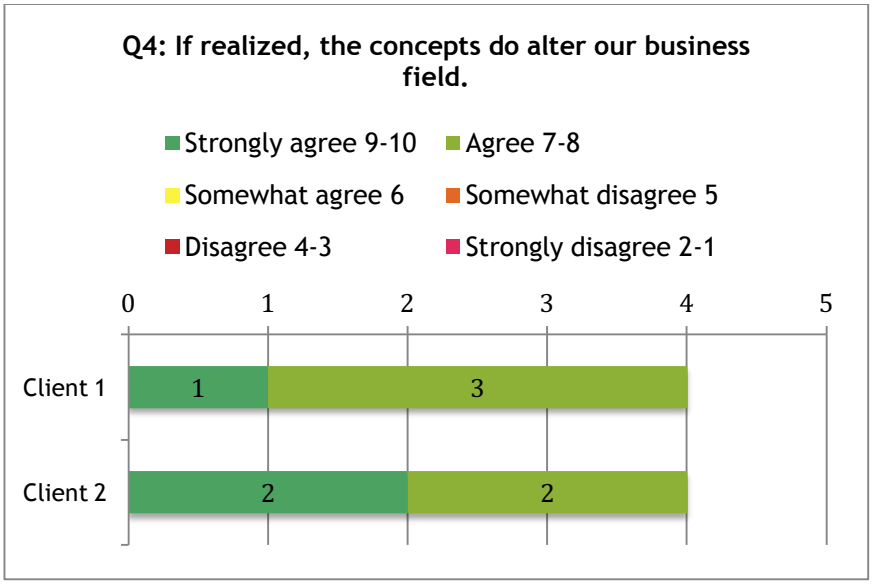
Appendix 9: The results of the cooperatives' feedback survey

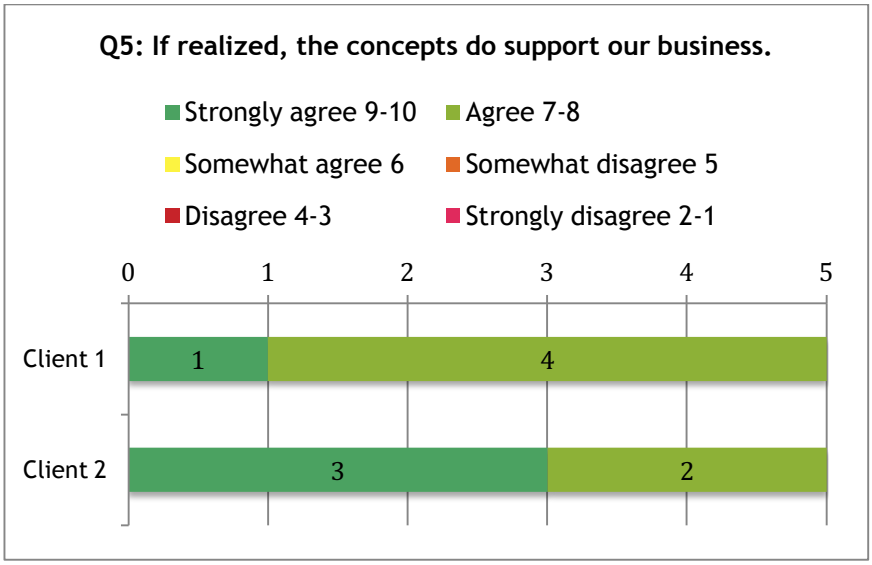


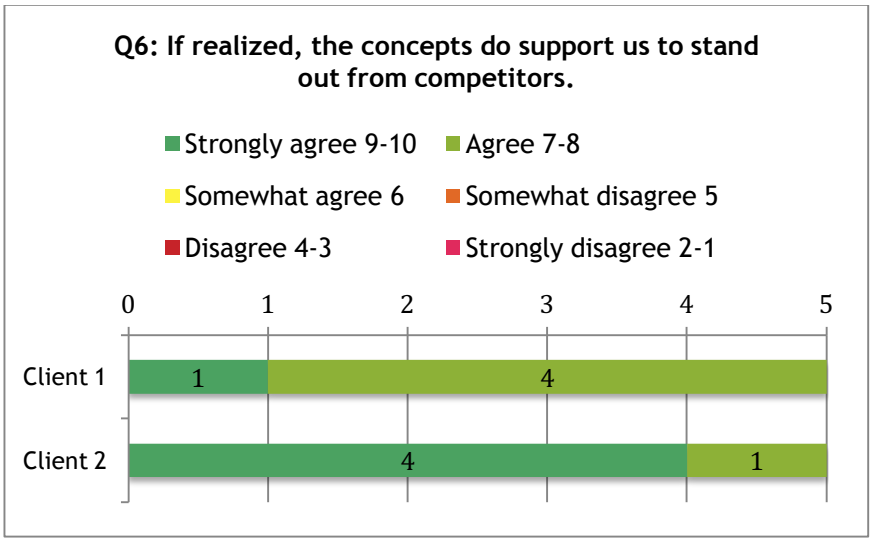




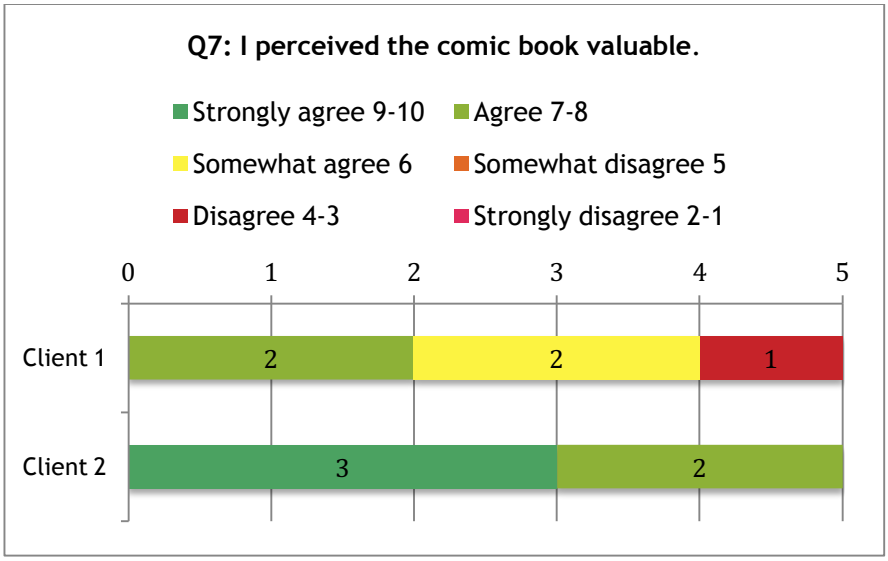
The results of the cooperatives' feedback survey (page 2/3)

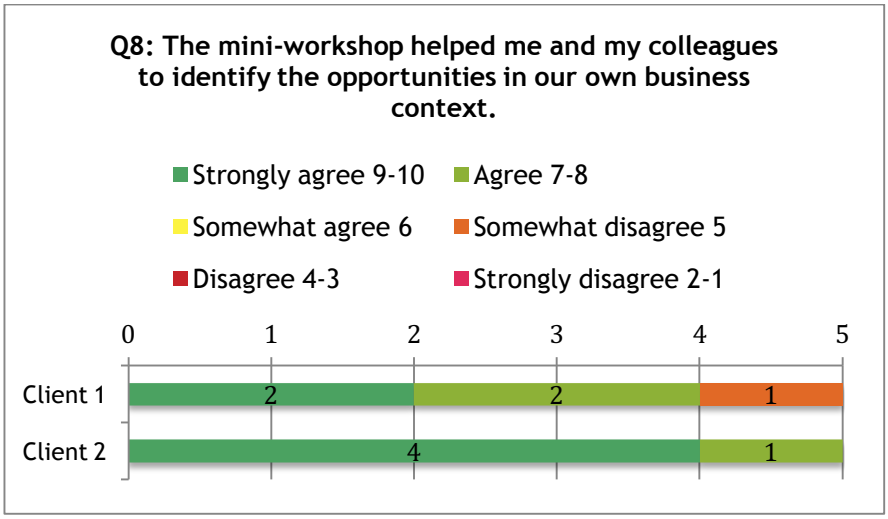


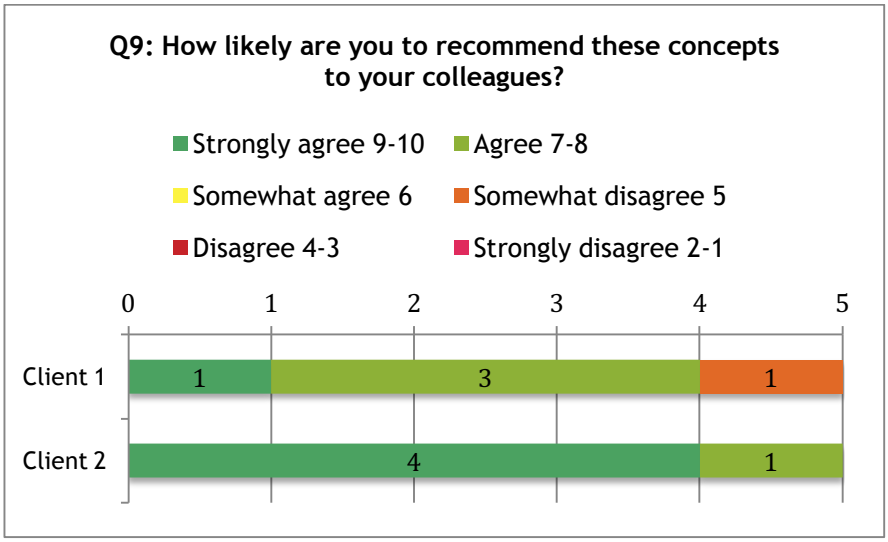




The results of the cooperatives' feedback survey (page 3/3)







Lots of great persons supported my thesis writing process,
like Sirpa, Hanna, Jaakko, Leena and Outi.

Thank you all. I really mean… all, and appreciate it deeply.

-Antti