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Designing a Digital Service Concept for a Professional Business Service -

Case *Työeläkelakipalvelu*

Nyyssönen, Sofia

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Designing a Digital Service Concept for a Professional Business Service – Case *Työeläkelakipalvelu*

Nyyssönen, Sofia
Degree Programme in Service Innovation and Design
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Laurea University of Applied Sciences **Abstract**
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Designing a Digital Service Concept for a Professional Business Service - Case *Työeläkelakipalvelu*

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The main purpose of the thesis is to study the design of a digital service concept for a professional service organization that provides business services. The Finnish Centre for Pensions is used as the case organization. The structure of the thesis consists of an introduction, presentation of the case organization, theoretical framework, research methodology, collection and analysis of empirical data and results, discussion and conclusions. The theoretical framework discusses professional services, digital professional services, service design, user center design and the elements of user experience.

Professional and knowledge-intensive service organizations are concepts that are sometimes used interchangeably. Both concepts refer to expert services that rely on a substantial body of complex knowledge, which is often seen to be characteristics of highly skilled employees. The thesis investigates the potential of service design to design a digital service concept for professional services that retains knowledge and applies insights that could noticeably improve the effectiveness of organizations. The focus is on the customer's value creating processes, where value emerges for customers and is perceived by them. Service design is a process that implies work on projects to integrate new service systems into organisations.

In the empirical research, a service design process was used due to its iterative and user-centered approach. Interview was chosen as the most primary data collection method due to the nature of the research questions, the scope of the theoretical framework and the limitations in the research project where the data was to be collected. Focus groups were used to gather information about users' experiences and preferences. After the interview sessions had been carried out, the data was clustered into an affinity diagram. A tree diagram depicts various features, i.e. the needs functions and elements of a service whereby each branch captures a separate idea to accomplish it. SWOT analysis aimed to identify the extent to which strengths and weaknesses are relevant so that the changes taking place in the business environment were feasible. In developing the rough prototype for the service, it was important to keep in mind what is beneficial to the end users, as well as the principles of the concept. The user case describes how the system helps the user to achieve their objective.

Työeläkelakipalvelu service concept can act as an advisory channel to the professionals in the earnings-related pension system, which offers professional services relating to the application of Employees' Pension Act, as well as the actuarial professional services. This means, for example, answering the questions via digital channels and through a publication of frequently asked questions. The service aims to promote interaction between professionals, coordinate the service process, and reduce the flood of information coming to the professionals in the format of e-mails.

Key words digital services, professional services, service design, user-centered design, user experience

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Digitaalisen palvelukonseptin kehittäminen yrityksille tarjottavalle asiantuntijapalvelulle – Esimerkkinä *Työeläkelakipalvelu*

Vuosi 2014 Sivumäärä 89

Opinnäytetyön tavoitteena on selvittää, kuinka kehittää digitaalinen palvelukonsepti yrityksille tarjottavalle asiantuntijapalvelulle. Esimerkkiorganisaationa on Eläketurvakeskus. Opinnäytetyön rakenne koostuu johdannosta, organisaation esittelystä, teoreettisesta viitekehyksestä, tutkimusmenetelmästä, tutkimustulosten analysoinnista, tutkimustuloksista, keskustelusta ja johtopäätöksistä. Teoreettinen viitekehys käsittelee asiantuntijapalvelut, digitaaliset asiantuntijapalvelut, palvelumuotoilun, käyttäjäkeskeisen suunnittelun ja käyttökokemuksen.

Asiantuntijapalvelujen sekä tietointensiivisten palvelujen organisaatiot ovat käsitteitä, joita joskus käytetään vaihdellen. Molemmat käsitteet viittaavat asiantuntijapalveluihin, jotka ovat riippuvaisia huomattavasta määrästä tietoa, mikä on usein nähty olevan osa korkeasti koulutettujen työntekijöiden ominaisuuksia. Opinnäytetyössä selvitetään palvelumuotoilun mahdollisuuksia suunnitella digitaalinen palvelukonsepti, joka tehokkaasti säilyttää tietoa ja lisää organisaatioiden tehokkuutta. Pääpaino on asiakkaalle lisäarvoa tuottavissa prosesseissa.

Empiirinen osa työssä toteutettiin palvelumuotoiluprosessia hyödyntäen sen iteratiivisuuden ja käyttäjälähtöisen lähestymistavan vuoksi. Haastattelu valittiin ensisijaiseksi tiedokeruutavaksi tutkimuskysymysten luonteen vuoksi, teoreettisen viitekehyksen laajuden sekä tutkimusprojektin rajoitusten vuoksi, josta aineisto oli kerättävä. Kohderyhmien avulla kerättiin tietoa käyttäjäkokemuksista ja mieltymyksistä.

Haastattelujen jälkeen aineisto ryhmitettiin affiniteettikaavioon. Puukaaviolla kuvattiin erilaisia piirteitä, esimerkiksi tarvetoimintoja ja palvelun osia, joissa kukin haara kuvaa erillistä ajatusta, kuinka ratkaisu saavutetaan. SWOT-analyysin tavoitteena oli tunnistaa, missä määrin vahvuudet ja heikkoudet ovat merkityksellisiä, jotta liiketoimintaympäristössä tapahtuvat muutokset olisivat toteutettavissa. Palvelun prototyypin kehittämisessä oli tärkeää pitää mielessä, mikä on hyödyllistä loppukäyttäjille sekä konseptin päätavoitteet. Käyttäjätapauksilla kuvattiin, kuinka järjestelmä auttaa käyttäjää pääsemään tavoitteeseensa.

Työeläkelakipalvelun palvelukonsepti voi toimia neuvoa-antavana kanavana asiantuntijoiden työeläkejärjestelmässä, joka tarjoaa soveltamisohjeita Työntekijäin eläkelain sekä vakuutusmatemaattisten asiantuntijapalvelujen piirissä. Tämä tarkoittaa esimerkiksi vastauksia kysymyksiin digitaalisten kanavien kautta sekä usein kysyttyjen kysymysten julkaisuja. Palvelun tarkoituksena on edistää vuorovaikutusta asiantuntijoiden välillä, koordinoida palveluprosessia ja vähentää sähköpostina tulevaa informaatiotulvaa asiantuntijoille.

Asiasanat asiantuntijapalvelut, digitaaliset palvelut, käyttäjälähtöinen suunnittelu, käyttäjäkokemukset, palvelumuotoilu

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1 Introduction

Service organizations tend to work in “silos”. It means that new ideas tend to flow slowly around organizations or cut across departmental boundaries. Recently innovation activities in service organizations have been the focus of many researchers that emphasize the need to open up innovation activities and to engage users and employees in these activities. (Jensen et al. 2007; Sundbo 1997.) Service innovation studies have emphasized these features from the beginning, as many innovations are seen to take place in the customer interface.

This thesis focuses on digital service innovation in a professional service organization that provides business services. The term “business services” is hereafter used as a shortened version for business-to-business services. The professional business service organizations emphasize the professional skills and autonomy of individual employees, since the employees typically develop complex solutions for customer-specific situations. The dynamic nature of knowledge creation in customer interaction leads to a situation in which the knowledge base may evolve constantly (Fosstenløkken et al. 2003), creating opportunities for new and improved services. These characteristics make the professional service organizations an interesting context for the studies of service innovation activities. However, empirical studies have shown that innovation and development activities in professional service organizations are often dispersed throughout the organization without a separate function to coordinate these activities. (Sundbo 1996.)

Service design approach could potentially identify inefficiencies and make communication and collaboration between departments more important. The intangibility of services and the autonomy of professional employees mean that innovations can be born in the customer interface as a consequence of customer specific solutions. (Gallouj & Weinstein 1997.) Therefore, this thesis focuses on the strategic use of collaborative service design methods that could help innovation to be implemented around and across organizations. However, they need to be relevant and fit the organization. The new service concept is all about supporting the business of the organization and not working in “silos” because it inspires the entire organization to be more customer centric.

1.1 Background for the research

The thesis looks into the potential of service design to design a digital service concept for professional services that retains knowledge and applies insights that could noticeably improve the effectiveness of organizations. Using service design thinking, we can take the best of out of organizations’ reports and sometimes overlooked files, and put it into environments where professionals regularly interact with it, learn from it, and build on it.

Professional employees working in “vertical information silos” tend to focus on the efficiency of their stage in the value chain rather than the quality of the complete customer/user experience. Nonetheless, services cross channels and have relevance not only for customers, but also technology, staff, organization, culture, and processes. In a few words, they tend to have an influence on organizations in broad and complex ways. The reason many service design projects fail is that organizations struggle to understand how difficult it is to implement change. A humble approach to the challenges that organizations face in making service concepts relevant is needed in order to reach their customers with new services. (Polaine et al. 2013, 19.)

The digital service concept – *Työeläkelakipalvelu* – would serve as an example of both internal and external knowledge retention tool. Hence, the terms *customer* and *user* are used in this thesis interchangeably as the service concept is intended for both professionals in the client organizations as well as the professionals of the Finnish Centre for Pensions.

1.2 Purpose of the thesis, main research questions and sub questions

The primary research question is formulated as follows: How to design a digital service concept for a professional business service?

The sub-questions addressed in the theoretical part include the following:

- What are professional services (Section 3.1)?
- What are digital professional services (Section 3.2)?
- What is service design (Section 4.1)?
- What is value creation in services (Section 4.2)?
- What is user-centered design (Section 4.3)
- What are the elements of user experience (Chapter 4.2.1)

The sub-questions for the empirical part include the following:

- What does the innovative service concept accomplish? (Section 6.2)
- How can value creation be facilitated with the service concept? (Section 6.3)
- How to design user-centered content? (Section 6.5)

The Finnish Centre for Pensions (Eläketurvakeskus) is used as the case organization. The empirical data consist of expert interviews at various organizational levels and focus group discussion.

1.3 Structure of the thesis

The thesis is comprised of six main chapters. Following the introduction, the thesis continues in Chapter 2, which presents the research context and the case organization. Chapter 3 and 4 present the theoretical framework. Chapter 5 describes the service design process, as a methodology. Chapter 6 presents collection and analysis and results of the empirical data. Chapter 7 focusses on dialogue between empirical results and theoretical interpretations of the findings. The conclusion and suggestion for further research are presented in Chapter 8.

1.4 Definition of key concepts

The key concepts defined below form the groundwork of the study.

Business-to-business services

In business-to-business service, the purchaser of the service ordinary represents an organization, not an individual, and this is the main difference compared to business-to customer services (Woo & Ennew 2005). The service exchange process is usually carried out by an experienced person in the organization, which often has a saying on the purchasing and re-buying situation. (Czerniawska & Smith 2010). Service delivery in business-to-business services is often characterized by being longer and with higher intensity than traditional services (Ojasalo 2001).

Professional service organization

This thesis focuses on professional service organization that provides business-to-business professional services. In a business service context, these organizations have also been labelled as professional business services (Løwendahl et al. 2001) or as knowledge-intensive business services (Miles et al. 1995).

Løwendahl et al. (2001, 913) suggests that the following are typical characteristics of professional services: “Value creation is knowledge intensive and delivered by highly educated employees, who are frequently closely linked with research and scientific development within their area of expertise. Services are based on a professional assessment (diagnosis) by experts in the field. Delivery involves a high degree of interaction with the client representatives, for diagnosis as well as delivery”.

Miles et al. (1995, 18) describes knowledge-intensive business service involve “economic activities which are intended to result in the creation, accumulation or dissemination of

knowledge. Knowledge may be developed in the course of all sorts of learning experiences, of course. But here we refer to deliberate efforts to establish knowledge - usually to establish explicit and formal knowledge - which may be related to the growing economic importance of "learning-based competition".

The professional and knowledge-intensive service organizations are the concepts that are sometimes used interchangeably. Both concepts refer to expert services that rely on a substantial body of complex knowledge, which is often seen to be embodied in highly skilled employees. In addition, intangibility of services has also been counted as an important characteristic. (Alvesson 2004.)

Digital services

For the purposes of this study digital services are defined as "an activity or benefit that one party can give to another, which is provided through a digital transaction" (Williams et al. 2008, 507). Thus, digital services are obtained through digital transaction over Internet Protocol (IP) so the method of delivery is more restrictive than in a traditional service as it requires the ability to use the infrastructure of the IP-based internet. The party that gives the service or activity is the digital service provider. The party receiving the benefit is the digital service user. (Wiliams et al. 2008.)

Service design

Service design in this research is considered to embody a highly user-centered aspect. Service design is a field that aims to improve the delivery, the process and the strategy to provide services in a more user-centric fashion. The relevance of service design is twofold: primarily, it encompasses the strategic design, and furthermore it takes into account the design of the tangible elements of the service. (Meroni & Sangiorgi 2011; Moritz 2005; Miettinen 2011.)

User-centered design

User-centered design in this thesis is considered to be an iterative development cycle where the specifications of the service account for both user needs and organizational objectives as well as specifying the context in which the service is to be used. When the service is being designed a great deal of attention is paid on *user experience* – how the service works and the experience the service create for the people who use it in the real world. (Garrett 2011, 6.)

1.5 Limitations of the study

The thesis is concerned with learning how service design could help professional organizations to better design its highly structured service processes. In this thesis, the collaboration of the public and private sector to create a better service through digital engagement tools is examined. The thesis attempts to identify the practices to overcome the challenges in the interaction between the two sectors. Nonetheless, the function of service design in the planning of public services is not in the scope of this thesis.

For the purposes of this study, this user group has been defined during the initial design stages. Besides earnings-related pension providers, users of the *Työeläkelakipalvelu* business service typically comprise a very heterogeneous community, such as appeal bodies, labor market organizations, other social security and insurance providers and authorities, as well as members of the general public. Because conducting research on all of these target group was neither practical nor feasible the *Työeläkelakipalvelu* service's primary users were identified early on.

The service supports numerous tasks. Nevertheless, to ensure a user-centered approach, the functionality of service was defined in terms of what the user needed to do, rather than all of the possible tasks the service could support. Also, "conducting search connected to earnings-related pension" was defined as the most important activity. This activity would be key to evaluating whether or not the services was providing value for the users even though the service provides other legal and actuarial services.

1.6 Existing research on the topic

There have been many thesis done in the recent years on the subject of the application of service design and its methods in the field of professional business-to-business services. The topic of professional services in a digital context and the accompanying themes on UX and user-centered design have gained distinction during the last couple of years. Table 1 lists previous theses on the topic. These are categorized based on professional, expert and knowledge-intensive services as well as digital professional service, UX and user-centered design.

Professional, Expert and Knowledge-Intensive Services	
Author, year	**Name of the thesis**
Pohjola, I. 2012	Asiantuntijapalvelun tuotteistamishanke
Jalonen, H. 2008	Asiantuntijapalvelujen markkinoinnin kehittäminen ja uusien asiakassuhteiden kartoittaminen - Case Rauman Seudun Kehitys Oy
Digital Professional Services	
Author, year	**Name of the thesis**
Wendland, M. 2013	Designing a service concept for the future Finnish grocery trade
Hyvärinen, J. 2012	Developing a Framework for the Implementation and Development of a Digital Customer interface for the Case Company X
User-centered design, user experience, usability	
Author, year	**Name of the thesis**
Alatyppö, S. 2013	Web interface design and testing for the MineHealth Training and Education Material
Mikkola, V. 2012	Designing administrative features for social learning application

Table 1: Previous research discussing professional services in digital context

The topic of development of expert services through productisation is discussed thoroughly in Pohjola's thesis (2012). The perspective in the thesis was customer-oriented, and the process is one of turning a service into a service product. The theoretical framework consists of four main concepts: expert service, service product, customer orientation and productisation.

Jalonen (2008) studied professional services in the field of consulting. The aim of the thesis was to provide the case company some suggestions on how it could develop its consultation services for start-ups. The research was conducted through surveys and took a point of view of the new entrepreneurs who would benefit from the service when establishing their companies. The theoretical part of this thesis included also the 8P marketing mix of services: product elements, price, place, promotion and education, physical evidence, people, processes, and productivity and quality.

Wendland (2013) proposed a service concept that engages customers by way of digital technologies. The service design process with its stages of insights, ideation and concept were applied in the thesis. The thesis utilized an assortment of methods. Online survey and cultural probes were used to gain insights into customers' needs. Moreover, to gather understanding of the market, an expert interview and desk research were conducted. The service concept was conceptualized with such tools as mood board, service poster, and service blueprint and customer journey.

Hyvärinen (2012) argued that a well-designed digital interface need to support the customer processes, and it must be easy to use. For the digital service to create positive customer experiences, it is essential to relate it to the internal processes of an organization and to engage customers in the design process. The theoretical framework was based on key principles of the value co-creation. For the most part, ethnographic methods were made use of for collection of empirical data.

Alatyppö (2013) and Mikkola (2012) discussed the topics of usability and user experience as the driving concepts behind the web user interface design today. Both theses explored web user interface usability as a concept as well as how to apply it. The main focus was on utilizing various usability methods undertaking and explaining the web design process and decisions made to create a user interface design for the digital service. Alatyppö (2013) looked at the subject from the point of view of interaction design, usability, and user experience as well as visual design elements for the website. Mikkola's (2012) thesis showed that web interface design requires relentless iteration of the different phases of the design process.

2 Pension funding and the case organization

2.1 The Finnish Centre for Pensions

The case organization of the thesis is the Finnish Centre for Pensions (Eläketurvakeskus). The goals, administration and funding of the Finnish Centre for Pensions is defined by the Act on the Finnish Centre for Pensions (2006/397). The Finnish Centre for Pensions is a statutory organization, which acts as an expert and provider of services that support the application of the earnings-related pension provision (Figure 1). It does not, however, provide pension insurance services to the employers' organizations nor does it grant pensions to the policyholders. The tasks of the Finnish Centre for Pensions are made up of the following (Eläketurvakeskus 2013):

- Providing legal guidance services relating to earnings-related pension provision;
- Providing planning, training and communication services related to earnings-related pension matters;
- Providing support in the preparation of guidelines and legislation;
- Providing research, statistics and background information for the evaluation of the earnings-related pension provision;
- Providing and managing services relating to the implementation of pension provision, e.g. allocation of costs and actuarial services;
- Functioning as a liaison organization in international earnings-related pension maters.

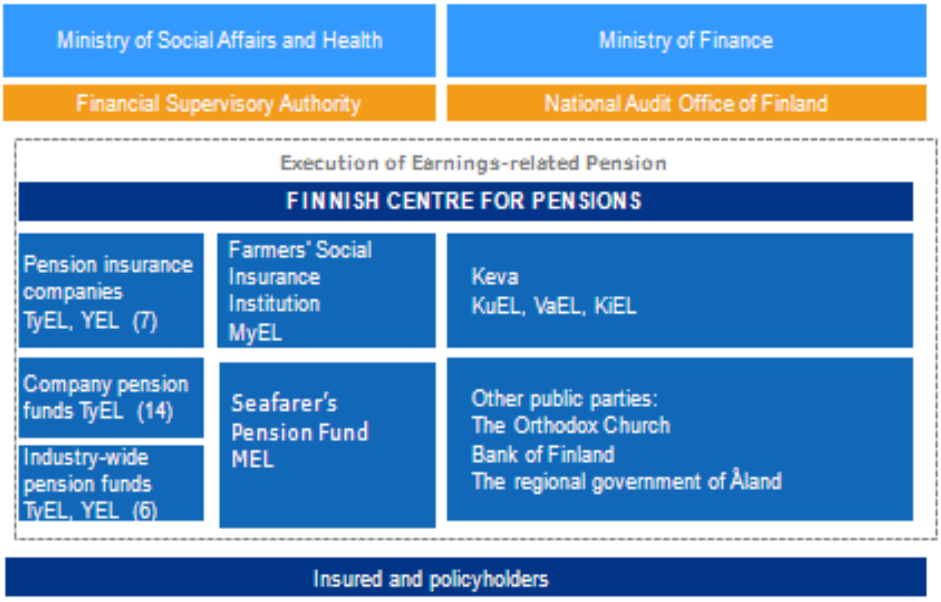

Figure 1: The legislation, supervision and execution of the statutory earnings-related scheme (Eläketurvakeskus 2013)

The pension system in Finland is decentralized, and the Finnish Centre for Pensions functions as the liaison organization of the private-sector earnings-related pension system (Figure 2). Supporting an enduring, trustworthy, and efficiently organized pension provision is the main role of the Finnish Centre for Pensions, as a statutory co-operation body. Customer organizations obtaining the professional services of the Finnish Centre for Pensions are made up of pension insurance organization in both private and public sectors, the insured and policyholders, the Social Insurance Institution (Kela), educational institutions, and the media. The Finnish Centre for Pension is also a research organization endorsed by the EU. (Eläketurvakeskus 2013a.)

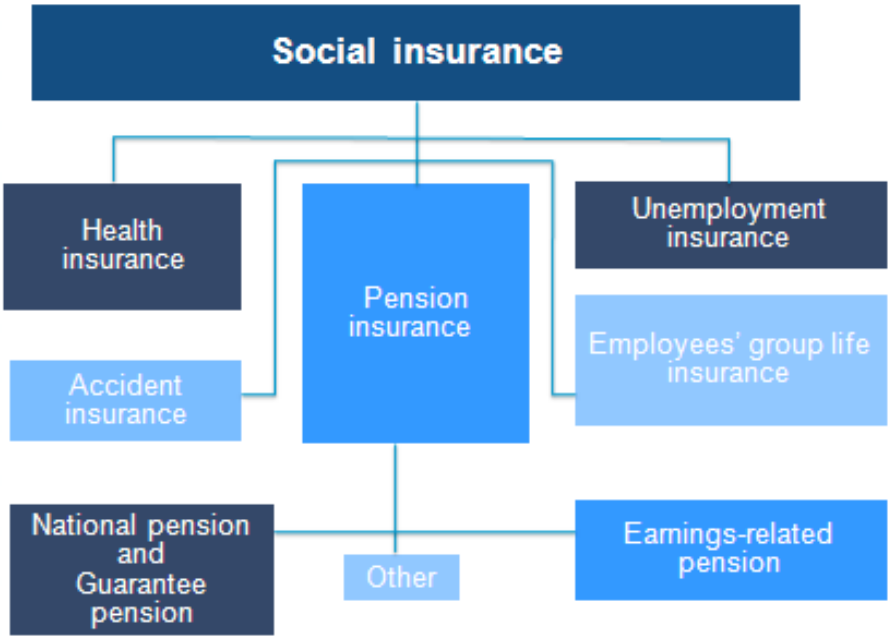

Figure 2: Earnings-related pension part of social insurance (Eläketurvakeskus 2013)

The expertise, cost-effective pension provision plan and awareness of the earnings-related pensions by the public are highlighted in the strategy of the Finnish Centre for Pensions. The strategy of the Finnish Centre for Pensions communicates the vision of adequate and cost-effective pension provision. What does the Finnish Centre for Pensions do to implement the vision? The Finnish Centre for Pensions acts in the implementation of the vision as part of the earnings-related pension scheme. The Finnish Centre for Pensions is seeking to develop holistic and customer-centric service delivery processes through cooperation with the customers. Most central strategic goals of the Finnish Centre for Pensions is dynamic, trustworthy and up-to-date expert services provided to the customer organizations. (Eläketurvakeskus 2013b.)

Services related to application, evaluation and support of earnings-related pension system are provided by the Finnish Centre for Pensions. Furthermore, there are two clusters of services provided by the Finnish Centre for Pensions, and its customers are more or less characterized along these lines. The services are distinct whether they concern the implementation the implementation of earnings-related pension scheme or the appraisal of the pension management. (Eläketurvakeskus 2013b.)

The Finnish Centre for Pensions' main principle is: "*courageously into the future, heeding our customers and furthering our competence*". This reflects view that the Finnish Centre for Pensions is seeking ways to be customer-centric, collaborative and flexible. The long-term goal is to maximize communication and collaboration characterized by complex networks of multi-organizational and multi-sectorial collaborations. Earnings-related pensions play a central role as insurers of citizens' wellbeing and financial security. The Finnish Centre for Pensions observes that the policyholders are treated uniformly even the fact is that the pension scheme is decentralized. This is to ensure that the confidence in the earnings-related pension scheme is sustained, which make a vital part of a healthy economy. (Eläketurvakeskus 2013b.)

The Finnish Centre for Pensions issues uses guidelines to the providers of earnings-related pension and issues statements concerning the interpretation of the pension acts. The application guidelines of the pension acts are often issues in collaboration with the pension providers and sometimes also with the labor market organizations. The application guidelines are an important part of activities of the Finnish Centre for Pensions and as a matter of fact the entire pension scheme. They ensure that the pension insurance organizations follow the same principles specified by law when granting earnings-related pensions to policyholders. (Eläketurvakeskus 2013c.)

2.2 Pension insurance organizations

Earnings-related pension organization can be organized as a limited liability insurance organization or a mutual insurance organization. The owners of the latter are the policyholders, i.e. the insured, the employees, the employers and shareholders. One or several private or legal persons (e.g. a company or corporation) can establish a pension insurance organization in Finland. The administrative model of the organization has a regular structure provided that the earnings-related funding is detached from the rest of the business activities. (Eläketurvakeskus 2013d.)

A pension insurance organization is regulated by the Act on Pension Insurance Companies (354/1997) and the Insurance Companies Act (521/2008). A recognition granted by the Council

of State is required for a pension insurance organization to possess to be able to operate. This is to uphold the interests of the policyholders, and to ensure the stable functioning of the earnings-related pension provider organization. (Eläketurvakeskus 2013d.)

2.3 Regulations of pension scheme

Laws and statutes, actuarial principles and insurance terms and conditions legislate earnings-related pension funding in Finland (Figure 3). Formulation of earnings-related pension legislation is the responsibility of the Ministry of Social Affairs and Health while the Finnish Centre for Pensions releases implementation guidelines of the earnings-related pension acts, in collaboration with the pension insurance organizations. (Eläketurvakeskus 2013i.)

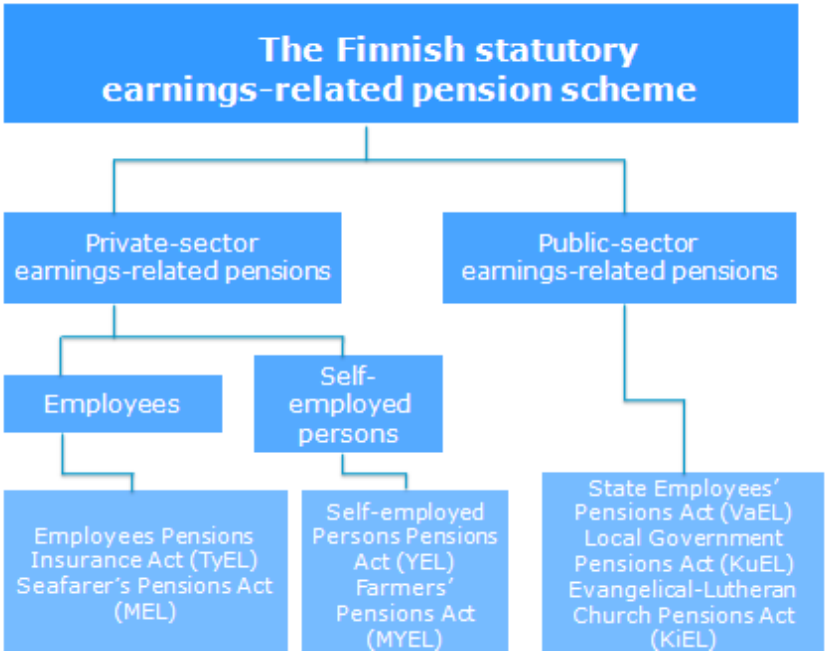

Figure 3: Structure of the statutory earnings-related pension scheme (Eläketurvakeskus 2013i)

The stakeholders in the pension scheme and the ministries formulate the actuarial principles that define the insurance terms and conditions. The insurance contributions and the required return for pension assets are defined and regulated by the actuarial principles. Furthermore, investment regulations and requirements concerning solidity and assets give permission to the investment activities of the pension funding organizations. Finally, the insurance agreement between the employer and the organization providing earnings-related pensions are defined by the insurance terms and conditions. (Eläketurvakeskus 2013i.)

The subject matter of pension provision is stipulated by the earnings-related pension acts while the instructions bring about consistent and firm practices throughout the pension funding industry. The provision of earning-related pension in the public sector is regulated by the Local Government Pensions Act 549/2003 (*Kunnallinen eläkelaki* KuEL, 1.8.2003) and the State Employees Pensions Act 1295/2006 (*Valtion eläkelaki* VaEL, 1.1.2007). (Eläketurvakeskus 2013i.) Correspondingly, the private-sector earnings-related pension acts are the following (Eläketurvakeskus 2013i):

Employees' Pensions Act 395/2006 (*Työntekijän eläkelaki* TyEL, 1.1.2007)
Self-Employed Persons' Pensions Act 1272/2006 (*Yrittäjien eläkelaki* YEL, 1970)
Farmers' Pensions Act 1280/2006 (*Maatalousyrittäjien eläkelaki* MYEL, 1970)
Seafarer's Pensions Act 756/2011 (*Merimieseläkelaki* MEL, 1956).

The Finnish Centre for Pensions in collaboration with the pension insurance organization and other stakeholders issues implementation guidelines. The guidelines pronounce, among other things how the earnings-related pension acts and the principles are to be applied. Moreover, implementation guidelines assert the principles used in the allocation of costs, and other regulations which have a bearing on the use of earnings-related pension provision. The implementation guidelines are recommendations on the use of the earnings-related pension acts, the purpose of which is to support a consistent application of the legislation on earnings-related pension by the pension provider organizations. (Eläketurvakeskus 2013i)

2.4 Industry-wide pension funds

In conjunction with the statutory earnings-related pension, an additional pension provision may also be extended to the members of industry-wide pension funds, whereby the employees contribute to the financing of such funds. The members of the fund, as well as, others who are insured with the fund can be the recipients of pension from the industry-wide pension fund. In that sense, they are particular to either employer or an industry, which is the main distinction compared to the pension insurance organization. Employees of one or several employers, insured under the Employees' Pensions Act (395/2006) and associated by way of a trade or business, are usually members of an industry-wide pension fund. (Eläketurvakeskus 2013e.)

If an existing pension insurance organization relocates and puts an employer-specific part of the insurance portfolio to a new industry-wide pension fund, under the Employees' Pensions Act (395/2006), an industry-wide pension fund can be founded. For a fund to be operational, it needs to obtain from the Insurance Supervisory Authority (Finanssivalvonta) a confirmation

for the rules of the funds and their changes. An adequate basic capital is commonly required from the commencing fund by the Insurance Supervisory Authority. (Eläketurvakeskus 2013e.)

2.5 Company pension funds

One or a number of employers can set up a company pension fund with the purpose of granting pensions to the persons insured with fund, according to the Act on Company Pension Funds (1774/1995). Provided that the employer- specific part of the insurance portfolio, with its assets, is transferred by an existing pension insurance company, a new company pension fund can be established. Both the company pension funds and industry-wide funds are overseen by Eläkesäätiöyhdistys. On condition whether they manage only statutory or likewise the additional pension provision, the company pension funds are divided into A, B and AB funds. Besides pension provision under the Employees' Pensions Act (B fund), AB company pension funds offer additional pensions (A department). (Eläketurvakeskus 2013f.)

Formally, the employer is represented in the administration of the company pension fund, which is a separate unit. For a company pension fund to be operational, it needs to obtain from the Insurance Supervisory Authority (Finanssivalvonta) a confirmation for the rules of the funds and their changes within the fixed time. In the region of one percent of all persons insured with Employees' Pensions Act (395/2006) are insured with a company pension fund. (Eläketurvakeskus 2013f.)

2.6 Public-sector pension funding

Primarily, Local Government Pensions Institution (Kuntien Eläkevakuutus, Keva) manages the implementation of the public-sector pension provision, stipulated by the Local Government Pensions Act (549/2003) and the State Employee's Pensions Act (1295/2006). The pension provision of local government, municipal federation, and State and Evangelical-Lutheran Church employees, the employees of the Social Insurance Institution of Finland (Kela), the Parliament, the Bank of Finland, the regional government of Åland and the Orthodox Church is managed by the main public-sector pension provider- Keva. (Eläketurvakeskus 2013h.)

The administration and funding of pension for the municipal employees', the majority of municipal associations and limited companies as well as pension provision of State employees is supervised by Keva. The Bank of Finland is subject to the pension regulation, governed in accordance with the State Employee's Pensions Act (1295/2006). (Eläketurvakeskus 2013h.)

3 Professional services and digital professional services

The business services are, among other things, distinguishable by the especially qualifications of the service provider to solve problems (Gummesson 1981a, 35; 1981b, 111). Problems are compounded in the case of business-to-business services in that what the organizational customers expect may be very complex and have delayed effects. The specific nature of professional services as intangible and complex performances also makes the relationships between actors particularly relevant (Crosby et al. 1990, 70-72). This is especially true because for professional business services, the existing exchange relationship together with its past and expected future constitute the most elementary context for the singular service performance (Halinen 1996, 317-320).

3.1 Professional services

Professional services are services based on the knowledge and expertise that a professional provides to a customer that is not able to solve the problem on its own (Ojasalo 1999). Professional services may be, for example, financial, legal counselling, or educational services. The need of organizations to cope with the constantly increasing need of acquiring and maintaining narrow and field-specific expertise is often the reason why organizations use professional services. Such services are based on the knowledge of the service provider with the purpose to provide the customer organization's personnel with such knowledge that it does not already possess but what it needs and receives during the service process. (Hirvonen & Helander 2001.)

Professional service organization makes an interesting context for studying innovation and development activities. An important feature that has an impact on many organizational aspects is a knowledge base of professional organizations. This thesis is concerned with the aspect of professional service organization to efficiently deliver professional services that rely on an organizational knowledge base. In this thesis, the term professional business services is used as a category of services in which employees' expertise is applied to a customer problem that could essentially create new knowledge through the interaction. The interaction between the client and service provider is considered to be in-depth and precise during the service process. (Miles et al. 1995; Løwendahl et al. 2001; Alvesson 2004.)

Due to these characteristics, professional employees are traditionally thought to have autonomous statuses and to be able to exercise their personal reasoning in service delivery (Alvesson 2004). Consequently, the emphasis is placed on the importance of professional employees in innovation and development activities. Primarily, the professional employees possess the knowledge needed to develop services. Furthermore, due to informality and autonomy, as well as intangibility of services, they may develop many innovative solutions alongside their

work. Because business targets are as important as professional aspirations, most of the activities are standardized and supervised. However, the degree of standardization vs. individuality of customer solutions may vary between departments within a professional service organization. (Alvesson 2004.) Kärreman et al. (2003, 89) suggested that the formalization in these organizations could be used as a strategy, which may actually provide a shared value or common 'language' for the organization's members.

To be able to adapt to the ever changing circumstances, it is vital for any professional service organization to be able to create new knowledge. According to Gummesson (1978, 90), the delivery of professional services is based on expert knowledge resources possessed by professionals, and it proceeds through the standard steps of diagnosing the problem, formulating a goal and operating on an assignment in order to produce the service, which is the solution to the problem, its implementation and the gained results. Therefore, professional services could be seen as, not about just owning and implementing advanced level of expertise but also about generating new knowledge. A sure way of creating knowledge is to approach it as a collaborative process with the customer.

There is a need to view professional business service evaluation in broader terms than only as an assessment of service quality. This special type of service calls for among other things, an evaluation of the whole value creation process. It has been found that the qualities considered most important by organizational customers are reliability and adaptability. The service provider must demonstrate the ability to resolve the customer's problem. (Hakansson & Wootz 1978, 28-39; Hakansson et al. 1977, 320.)

In professional business service setting, the strength of the relationship between the service provider and the client company potentially has a considerable impact on service evaluation, and each service performance is a complex process where different components are distinguished and evaluated (Halinen 1996, 318-320). The provider of service must not only understand the dimensions of the problem, but must also provide solutions to it: hence the supplier must demonstrate a problem-solving ability, and the supplier must demonstrate the ability to pass on the solution to the customer, hence a solution-transferring ability (Wikström & Normann 1994, 11-17).

3.1.1 Service innovation in professional service organizations

Innovativeness is typically defined as an organizational motivation or capability linked to the creation of innovations. As a motivation, it has been defined as openness to new ideas in a firm's culture. (Hurley & Hult 1998, 44.) Some scholars relate innovativeness to idea generation or a firm's 'tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes

(Lumpkin & Dess 1996, 142). Other researchers understand innovativeness as capability; it is defined as an organization's innovative capability to introduce new items and services to the market by uniting strategic orientation with innovative actions and process (Wang & Ahmed 2004, 304). For example, an organization can adopt ideas that are already business as usual for other organizations.

Ideas are typically considered useful if they have the potential to provide direct or indirect value to the organization, in either the short or long term (Shalley et al. 2004). This value might not be just economic; increased satisfaction, personal growth and better interpersonal communication may also be included (West & Farr 1989). West and Farr (1990) give a definition of innovation in which usefulness is defined thoughtfully. They defined innovation as 'the intentional introduction and application within a role, group, or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to benefit the individual, the group, organization or wider society (West & Farr 1990, 9.) This thesis is limited to the service innovations, or rather an iteration of the previous service, that are intended to be beneficial in the organizational context.

Therefore, service to the customer cannot always be separated from the production process, which means that innovations in resources/processes and service outputs are intertwined (Gallouj & Savona 2009). Service innovation studies, however, have identified different dimensions in which the innovation occurs. Den Hertog (2010), for example, suggested that service innovation may focus on the service concept, the customer interaction, the business partners, the revenue model, or on the organizational and technological components of the service delivery system. As these dimensions are intertwined, an innovation in one element is likely to influence other elements.

As discussed above, innovativeness can be seen as an organizational potential that is realized through the activities of an organization's members. Apart from creating new ideas in-house, ideas can be adopted from outside and applied and modified to fit the organization's purposes. (Amabile et al. 1996.) Hence, innovation and development activities are defined as the activities that aim to create and/or develop new and useful ideas.

Den Hertog et al.'s (2006) study of business-related services suggests that if an organization does have a specific R&D department, it is likely to focus on technological development. Their case study also revealed that formalized innovation procedures and long-term R&D strategies for service development were rare, although many firms had started to develop more systematic approaches for service development. The majority of service development activities were carried out by cross-organizational project teams that dissolved after the process was finalized. These processes were not typically centrally coordinated and documented,

and therefore many activities were “hidden” R&D that were dispersed within departments. (Den Hertog et al. 2006.)

Instead of following a linear pattern from development to launch, the development processes often iterated with the application of ideas in various customer projects (Toivonen et al. 2007), and the ideas were disseminated locally by the professionals through gradually enlarging the networks of interested customers and colleagues (Heusinkveld & Benders 2003). The professional-driven form was typical in organizations that had a weak departmental structure and a pool of relatively autonomous people.

In the organization-driven form, potential ideas go through a selection process and development efforts were seen as investments with the goal of developing the organization’s expertise. In contrast to the professional driven form, the full service concept was typically developed before launch. Heusinkveld and Benders (2003) argued that in the professional-driven form idea, generation is largely dependent on the individual professional’s ambitions and upcoming customer assignments. The organization-driven form, on the other hand, may not motivate consultants to search for new opportunities, which wastes the innovative potential of expert labor.

Service innovation in organizations is about the creation of new user experiences and new service solutions in a joint process with customers and is intrinsically multi-dimensional and multi-party and therefore tougher to create and manage than mostly anticipated. It may involve a new service concept, new customer interaction, and new organizational or technological service delivery systems. However, due to relatively undeveloped organizational perspective on service innovation in most of the literature, an understanding of how to manage service innovation at the level of organization is needed. We still lack understanding of what organizational routines and capabilities are effective in order to introduce new service experiences and service solutions. (Den Hertog 2010, 225-320.)

3.1.2 Innovation around the core service

La et al. (2008, 278) provides the following definition for core service: “The core service in the present context (professional business-to-business services) refers to the capability of utilizing technical or intellectual know-how to provide a business solution to a client’s problem.” This aspect of core service characterizes those service elements, which customer originally needs in order to meet the lack of competence and resources, which led to the purchase of services. The customer recognizes that this aspect of core service contributes to the value creation before, during or after the use of the service. The service provider facilitates the

value creation through their basic competencies represented by the core service. (La et al. 2008, 278-290.)

Although the core service is considered as a premise in professional services, customers often tend to highlight other factors than the core service in their constant evaluation process due to intangibility and complexity and delayed results of professional services. In the context of digital professional services, creating user experience innovation around the core service is essential for any system. This is mainly because customers spend most of the time and focus on the core service. Therefore, it represents natural and expected areas in which to keep improving and innovating. (Kraft 2012, 57-64.) Core service is something that may even increase the competencies of the service provider when shared. When the service provider bases its services on its core competencies, it can provide solutions to the customer's problems in an economically profitable way. (Hirvonen & Helander 2001, 282.)

3.2 Digital professional services

Digital or online professional services allow members to join a professional network, and create and manage their professional profiles whereby members can exchange and communicate information with others in the network. Digital professional services have two main characteristics: the self-service nature and credence characteristics. (Ding et al. 2007, 246-268.)

Self-service customers, in both an online context as well as with a high-involvement service, prefer personal control, time and cost saving, as well as the avoidance of personal contact in service (Figure 4). Within the context of online financial services, self-service users prefer real time information and evaluation, as well as free research and analysis tools. Real-time information and availability of research and analysis are rated as the top two variables for self-service consumers, suggesting that these consumers value both timeliness of an information and the quality of information. Digital professional services allow access to professional service provider databases whereby they establish a relationship by way of providing a council or advice. (Ding et al. 2007, 249.)

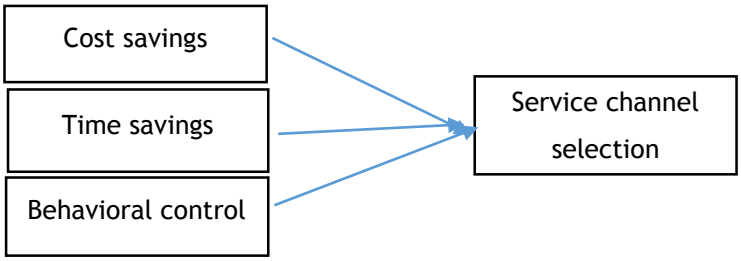

Figure 4: Service channel selection in digital professional services (Ding et al. 2007, 249-250)

Perceived cost saving is viewed as the extent to which a person believes that using a particular system will save his or her money expended on the service process. Perceived time saving is viewed as the extent to which a person believes that using a particular system would save his or her time expended on the service process. As technology-based self-service has been described as allowing the actual service to be performed more quickly or efficiently than does the traditional interpersonal alternative, time saving is rated as the most important factor for choosing digital professional services. Defined as "customers' ability to successfully perform the service tasks without service personnel contact," perceived behavioral control has also been identified to impact perceived performance of technology-based professional service. (Ding et al. 2007, 249-250.)

Similarly, Pujari (2004, 200-219) found that that key sources of satisfaction with online professional services are different for business-to-business clients from for end consumers. The study shows that in the business-to-consumers context, key sources of satisfaction are easiness to use and anytime anywhere accessibility, whereas, in the business-to-business context, key sources are time savings and improved efficiency. Business clients also get better customer experience by using digital services because of real time access to information and inventory data and simply the convenience of using the system. Improved process efficiency is another significant category identified. Process efficiency improvement comes from the lack of interpersonal encounters and overcoming delays by cutting down on the number of steps. Further, satisfaction stems from the fact that online professional services provide time savings by completing more functions from the same technology-encounter. On the other hand, service providers are installing digital delivery systems for their customers and clients because of productivity and cost savings

4 Service design and user-centered design

Both strategic design and the design of the tangible elements of the service are encompassed in the field of service design (Meroni & Sangiorgi 2011; Moritz 2005). Moritz (2005, 19) goes on to explain service design as a multidisciplinary approach where business, design and technology are overlapping elements.

4.1 Service design

Service design helps to develop and innovate services (Moritz 2005). Accordingly, the purpose of designing services is a goal that is not only deemed cost-effective from the point or view of the service provider but also desired and functional from the customer's perspective. Designing services is best exemplified not as an isolated event but as an ongoing process. It provides strategies to design and develop meaningful service experiences. (Moritz 2005, 40.) Meroni and Sangiorgi (2011) anticipate a modification in the practice of service design from the design for service interactions and interfaces to an innovative way of design for services. By and large, design for services have a say in the strategic design that targets to lead into principal alterations in local patterns, behaviors and systems. (Meroni & Sangiorgi 2011, 155.)

Currently, co-creative service design and user-centered design have been acknowledged as a tendency. Meroni and Sangiorgi (2011) in their analysis of 17 case studies observed that the service design includes a vigorous user-centered methodology. This way of thinking of services creates the competence and methods to examine user experiences when designing new services. Service interactions can be explored from a variety of perspectives: public's or organization's interactions with the service, interaction between staff and their organizations and finally, interaction between the different service systems. (Meroni & Sangiorgi 2011, 203.)

According to Stickdorn and Schneider (2011, 34-45), five main principles of service design thinking are user-centered, co-creative, sequencing, evidencing and holistic. According to the first principle, user's needs should be put in the center of the design process. This principle focuses on genuine understanding of customers' needs and experiences, as well as on understanding of the wider context. Co-creation can lead to the sense of co-ownership and therefore the designer needs to build an environment that facilitates the generation and evaluation of ideas between all concerned stakeholder groups. The principle of sequencing focuses on the idea that services are built by various service touch points following each other, before, during and after the main service encounter. The principle of evidencing emphasizes the idea that intangible services should be visualized to add a tangible element. In service design, it is important to consider all the different elements influencing the holistic service experience, including different senses and environmental factors.

Miettinen (2011, 21-23) points out co-design, empathy and participation as the main principles of service design. Service designers use methods to engage the user and give them power to influence the design and new methods are developed to enhance communication, inclusion and participation. Co-creation or co-design allows the customer to co-construct the service experience to suit her own context and the service design process offers methods to enable this. (Miettinen & Koivisto 2009, 11.) Involving and empowering users in the design process, participatory design or co-design, is, therefore, a both creative and interactive process.

Empathy towards users and their needs, as well as perceptions of context of use as sources of inspiration, are very requirements for service designers (Miettinen 2011, 27). Service design aims to understand users' needs, goals, problems and challenges, experiences, wishes and behavior as a starting point for ideation and to develop services that are useful, usable and desirable from their point of view. Moritz (2005, 43-47) puts emphasis on this principle by defining service design as truly representing user's perspective.

4.2 Value creation in services

Value creation can be defined as customer's creation of *value-in-use* where the customer is always the value creator. "Value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the service provider" (Grönroos 2007, 27). The focus is on the customer's value creating processes, where value emerges for customers and is perceived by them. Value for customers is partly created by the customer when using the service and partly co-created by the two parties. Essentially, value-in-use is created "through the user's accumulating experiences with resources, processes and their outcomes in social, temporal and/or spatial contexts". (Grönroos & Voima 2011, 9.)

When the customer is the creator of value through experiences in an accumulation process, the service provider may facilitate the customer's value creation by producing the resources and processes that represent potential value or expected value-in-use for the customer. The customer is the one experiencing the value by integrating resources and processes in the customer's own context. Therefore, the customer is the value creator and the service provider is a value facilitator. (Grönroos & Voima 2011, 9-10.)

Thus, activities performed by the service provider facilitate the customer's value creation. The resources that customer's use are innovated, designed, developed and delivered with interactions with customers. Interactions make value creation a dialogical process of interaction where the service provider may influence the customer's value creation process and take

the role of co-creator. Essentially, the service provider is a facilitator of value for the customer. (Grönroos & Voima 2011, 17-19.)

Thus, the perspective taken on in this thesis is that value creation is a process: every customer has its own value creation through which it creates value in its business operations. The purpose of the customer's value creation is to facilitate the customer organization to achieve its goals and missions. Consequently, customer continually measures value in relation to its own goals. (Hirvonen & Helander 2001.) Thus, if the service provider aims at building a long-lasting relationship with the customer, it has to have a solid understanding of its customer's goals, vision and strategy (Storbacka et al. 1999).

By understanding the customer's value creation process, the service provider can more deeply identify the challenges the customer organization has regarding its business activities. By providing a solution to these challenges, the service provider can offer more valuable relationship to the customer. (Storbacka et al. 1999.) Organization's strategy can be seen as defining business and linking two most important resources in a way that is beneficial to the organization and brings value to the customer: organization's and its customers' competences. The emphasis on managing business relationships should be directed towards understanding and improving the value creation processes of customer organizations so that value could be created for both parties in the relationship. (Hirvonen & Helander 2001, 282-283.)

4.3 User-centered design

User centered design looks into how to take the user into account every step of the way as we develop the service as well as how humans use the technology. Innovation and innovative solutions are the side effect of our ability to empathize and to connect with users. If we listen closely to what the user needs and respond with our understanding of how they feel and why. In the beginning of the project, we usually start with our own assumptions and biases and using the same methods and tools we used before. If we are sufficiently aware, we come to the conclusion that we are fitting an old idea into a new context. We realize that we need a new paradigm, a new way of thinking. However, it only when we are willing to listen and empathize do we come to a new way of thinking, a simple, intuitive- an experience in which everything works in an obvious way. (Garret 2011, 17.)

User-centered design is the practice of creating engaging, efficient user experience that takes the user into account every step of the way. By breaking the user experience into its component elements, we ensure that we know all the ramifications of our decisions. The goal is to bring about the user experience that is cohesive, intuitive and pleasurable. (Garrett

2011, 17-20.) These decisions build upon each other influencing all aspects of the user experience.

User experience design deals with the questions of context (Figure 5), and the most complex the service is, the more difficult it becomes to identify exactly how to deliver a successful user experience. Each additions feature or function or step in the process of service creates an opportunity for the experience to fall short. The simple understanding of user's needs and wants is often neglected in the development process. Often services, like Web sites become hard to use and unappealing. (Garrett 2011, 8-9.)

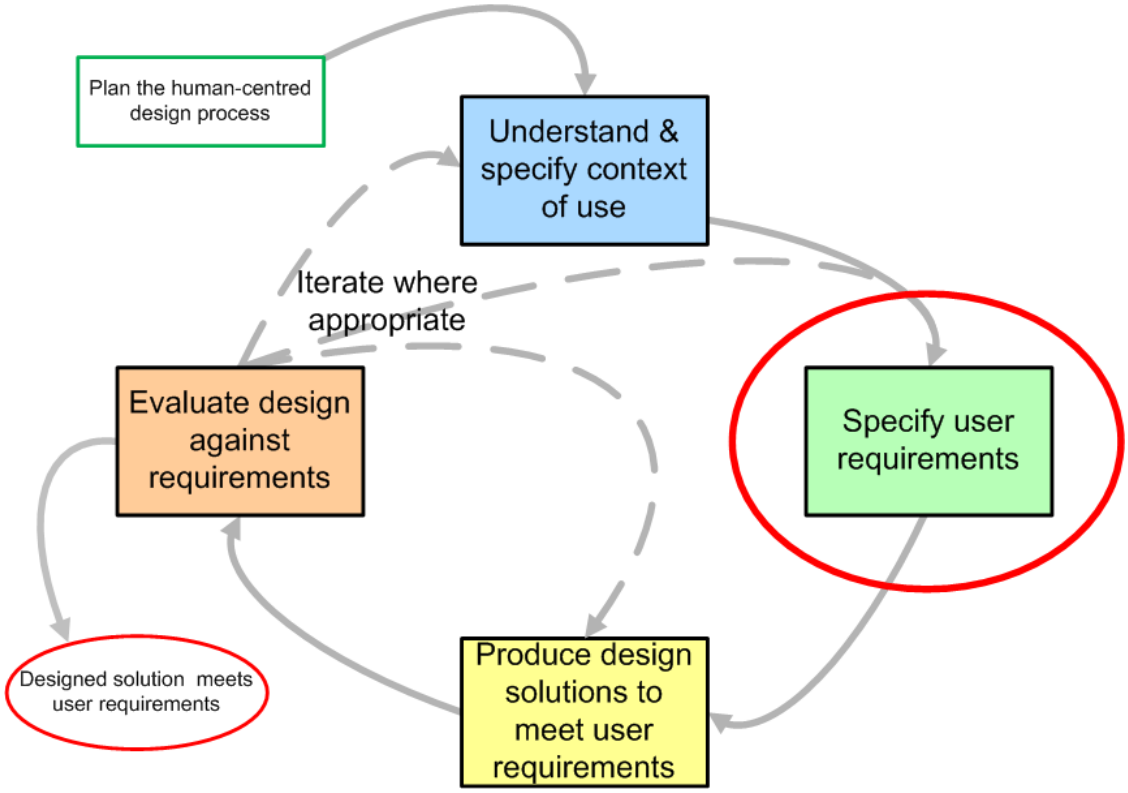

Figure 5: Human-centered design for interactive systems (ISO 9241-210:2010)

User experience forms the customer's impression of the service that the organization provides. Sometimes it can mean the difference between a project that create value for the organization and a project that becomes vastly resource consuming. Basically, user experience aims to improve efficiency in two ways: by helping people work faster and make fewer mistakes. This in turn improves the productivity of an organization as a whole. (Garrett 2011, 15.)

4.3.1 Elements of user experience

A conceptual framework for talking about user experience has five planes: strategy, scope, structure, skeleton and surface (Figure 6). On each plane, the issues we must take into account become less abstract and more concrete. On the lowest plane, we are concerned with the needs of our user and with how the service fit the strategy of an organization whereas, on the highest plane, we are concerned with the concrete details and visual design of the service. (Garrett 2011, 21.) The dependence means that the decisions on the strategy plan will have an effect all the way up the chain.

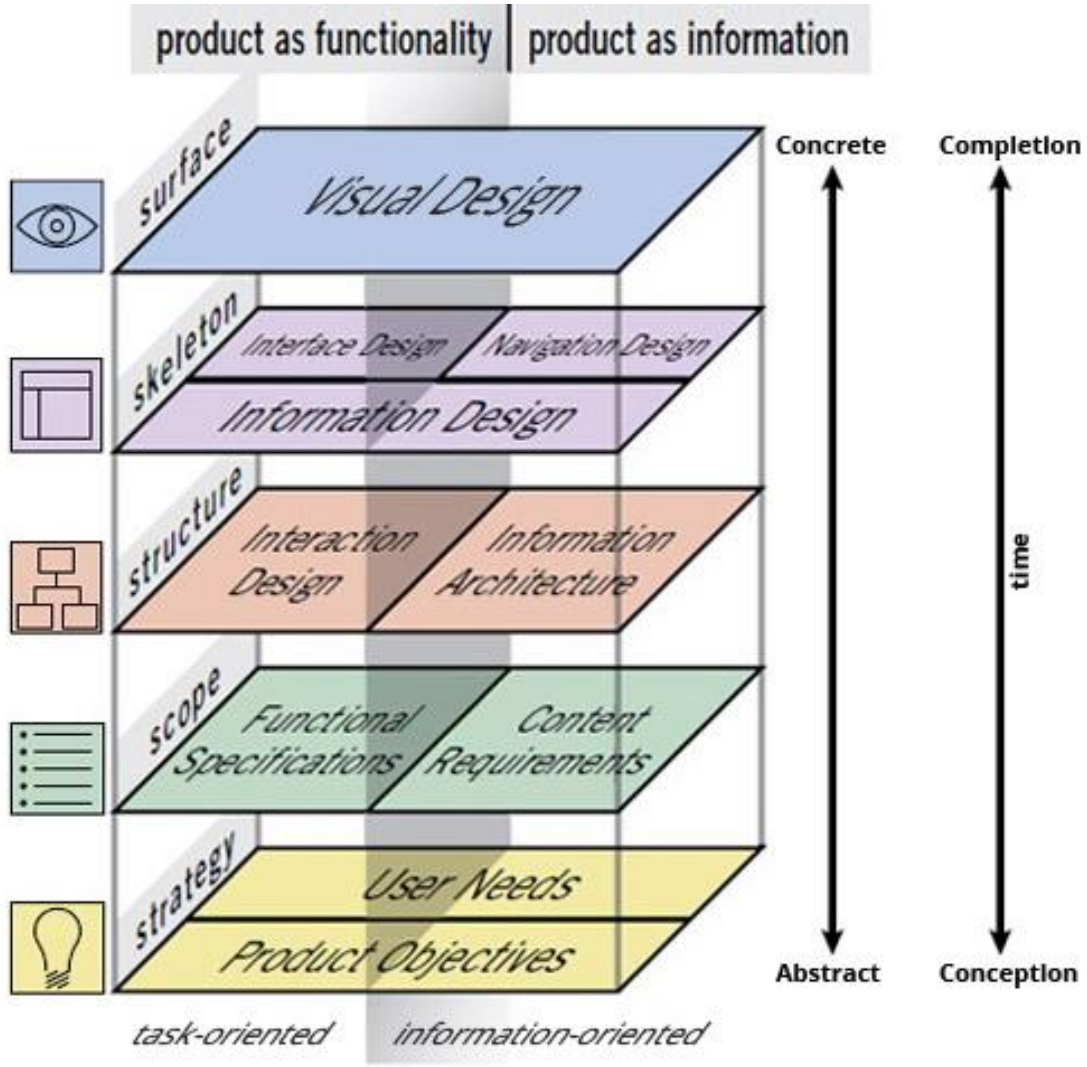

Figure 6: The elements of user experience (Garrett 2011, 22)

At this stage, we are asking two basic questions: “What do we want to get out of this product or service?” and “What do our users want to get out of it?” *User needs* are the goals that for the service that come from the people that will our site. Knowing what we want to accomplish for our organizations and our users informs the decisions we have to make about every

aspect of the user experience. Identifying wide range of user needs is quite complicated as users can be diverse. We can break the mass of user needs through user segmentation consisting of users with certain characteristics in common. (Garrett 2011, 41-42.) By dividing the audience into smaller groups with shared needs user segmentation helps us understand user needs better.

On the other hand, *product objectives* come from within the organization. We need to identify what we expect the project aims to accomplish and make our strategy explicit. An effective strategy not only serves as a touchstone but can also build for the project in other parts of the organization. (Garrett 2011, 53.)

Strategy becomes scope when we translate user needs and product objectives into specific requirements for what *content* and *functionality* the product or service will offer to users. At this stage, we are asking a new question: "What are we going to make?" On the functionality side, we are concerned with what would be considered the feature set of the product whereas on the information side we are dealing with content. These terms are often used interchangeably, and the term *feature* is used to refer both software functions and content offerings. Knowing which audience the content feature is intended for we can make better decisions how to present that content. (Garrett 2011, 58-74.) Because the scope is built on strategy, we need to evaluate whether the feature requirements fulfill our strategic goals.

The next step is to develop a conceptual structure for the service. That is to describe how the pieces fit together to create a cohesive entity. This is the point where the concerns shift from the more abstract issues of strategy and scope to the concrete user experience. *Interaction design* deals with creating a structured experience for the user. In content development, structuring the user experience is a question of *information architecture*. (Garrett 2011, 79-81.)

Both interaction design and information architecture share an emphasis on defining patterns in which options will be presented to the user. While interaction design concerns the options involved in performing the task the information architecture deals with conveying information to the user. They are both about understanding the user- the way they behave and think and how the system responds to that behavior. On the content side, information architecture is concerned with creating organizational and navigational schemes that allow users to move through site content efficiently and effectively. (Garrett 2011, 82-89.)

On the skeleton phase, we refine the structure, identifying specific aspects of the interface, navigation and information design that will make the concrete structure. This phase defines what form the functionality will take as it deals with matters that involve a refined level of

detail. On the functionality side, we define skeleton through *interface design*. *Navigation design* is the especially form of interface design tailored to present information spaces. Crossing both sides we have *information design*, the presentation of information for effective communication. The lines between the three elements are often blurry. The interface is the means by which user comes into contact with the functionality defined in the specifications in the interaction design. If it involves providing users with the ability to move from one point to another, it is navigation design. If it involves communicating ideas to the user, it is information design. (Garrett 2011, 107-109.)

Visual design is at the top of the five-plane model. On this plane, we are dealing with the logical arrangements that make up the skeleton of the product. A good visual design improves the content and functionality of the page or function. A good visual design improves the content and functionality of the page or function. Visual design focuses on the aesthetics by strategically implementing images, colors, fonts, and other elements. (Garrett 2011, 141-143.)

4.3.2 User needs and service objectives

The strategy plan incorporates both the strategy of the service provider and the needs of the users of the service. The structure defines the ways in which the different features and functions of the service fit together, which constitutes the scope of the service. (Garrett 2011, 21.) User needs are the goals for the service that come from outside of the organization whereas the services objectives can be broadly organizational goals (Garrett 2011, 28).

The strategy is adapted into the scope through the creation of functional specifications of the service. On the information side, scope takes the shape of content requirements: a description of various content elements that are essential to the service. The content that is available to the provider of service or that it has resources to obtain or manage will play an important part in shaping the service. The matters of content are essential to the ultimate user experience of the service. The first step in making the internal strategic objectives clear is examining the objectives of the service. This means to identify precisely what we expect the service to accomplish, regardless of the rest of business activities. (Garrett 2011, 28-37.)

Identifying user needs can be intricate because users can be quite various. We need to understand who the users are and what they need by adopting the user's perspective. Even if the users are inside the organization we still need to address wide range of needs. Once we know whom we are trying to reach we can conduct a proper research targeting the people that will use the service. (Garrett 2011, 42.)

4.3.3 Functional and content requirements

In digital service development, the scope is defined through content and functionality. The term that defines functional requirements is *functional requirements specifications:* requirements at the beginning of the project to describe what the system should do. It is used to refer to both software functions and content offerings. Content development often involves a less formal requirements definition process that software does, but the underlying principles are the same and content requirements often have functional implications. The most productive source for requirements is the users themselves, people inside the organization and other stakeholders. Equally, the content requirements need to be validated against the strategic objectives. (Garrett 2011, 65-71.)

Content must matter to the person consuming it, which in turn means that it is not enough to simply repeat information across every channel and touchpoint feasible. Instead, we need to adopt more micro approach to information architecture, considering the inherent shape of content first then designing user-centered systems that enable understanding. Content is layered, intensely personal, and it deserves attention. Content architecture structures content to add meaning to it. Structured content adds design phase to the content management and organizations treat it as a business decision that needs to be invested in. (Wachter-Boettcher 2012, 210-211.)

5 Service design process

The customer experience make possible for us to connect people, processes and technology within an organization. Nevertheless, every large organization has a problem with “silo effect”, departments operating in disconnection. On the face of it, customers endure as a consequence of disconnected organizations. Connection of “silos” is achievable if customers are referred to as the one thing the departments have in common. Exactly how customers experience the different departments can be studied by summarizing the customer experience and then examining the effect of a particular department on the experience on the whole.

Nevertheless, how digital technology that affects every single facet of the business could be used to enhance the customer experience? Typically customer experience is broken down into key phases and more detailed stages. Understanding the different phases and stages by mapping the user’s experience can potentially help identify points for improvements and possibly develop future scenarios. The question is how to match customer expectations with the life of the business. (Polaine et al. 2013, 19.)

How does customers’ experience facilitate working together, collaborating internally? Organizations making an effort to close the gaps between departments by introducing or changing processes, struggle with where to engage in. In planning internal and external customer-facing activities, an effort on providing the best possible user experience can help the organizations. Aligning business processes and departments with the customer life-cycle creates a smoother experience for customers and staff alike. On-stage is as all the parts of the business that perform tasks that directly impact the customer experience while back-stage is defined as the internal business activities that lay down the requirements for the on-stage activity. The match between the customer experience and the business goals comes out of understanding of each department that they are supporting one overall customer experience. (Polaine et al. 2013, 133-135.)

Many times organizations tend to look from inside-out when they should taking the outside-in approach. This requires research, customer insights and most importantly – the right attitude. From the customers’ point of view, we need to ask ourselves what are the expectation of the service? What are the customers looking for in the new process the organization is adopting? Also, why the organization is doing it? So, it is not only about designing a service innovation and the process surrounding it but we need to look at the bigger picture. Not least what are the requirements and what activities the organization needs to do that has not done before. So, both internal and external factors need to be taken into perspective. In many cases, service innovation fails because it was not thought through and developed in a way to make it

relevant to the customers. The service design process is pretty straightforward, and potentials for its applications are vast. The iterative nature of the process starts by looking in, looking out, imagining the idea, shaping and expressing it, and finally giving it form. (Polaine et al. 2013, 86-87.) Most importantly, it allows us to identify where the service innovation could be introduced.

How to improve user experience with service design tools? Service design is a process that aspires to identify with the customer, organisation and market. It also aims to build up new innovative ideas and to help implement them. It is, ultimately, an ongoing process that implies work with workshops and projects to integrate new service systems into organisations. (Moritz 2005, 39-40.)

Moritz (2005, 149) has grouped the different stages of service design into six categories: understanding, thinking, generating, filtering, explaining and realizing. The stages duly illustrate the ongoing process that service design is at its core (Figure 7). In a service design project, the six categories often overlap and inter-link with each other.

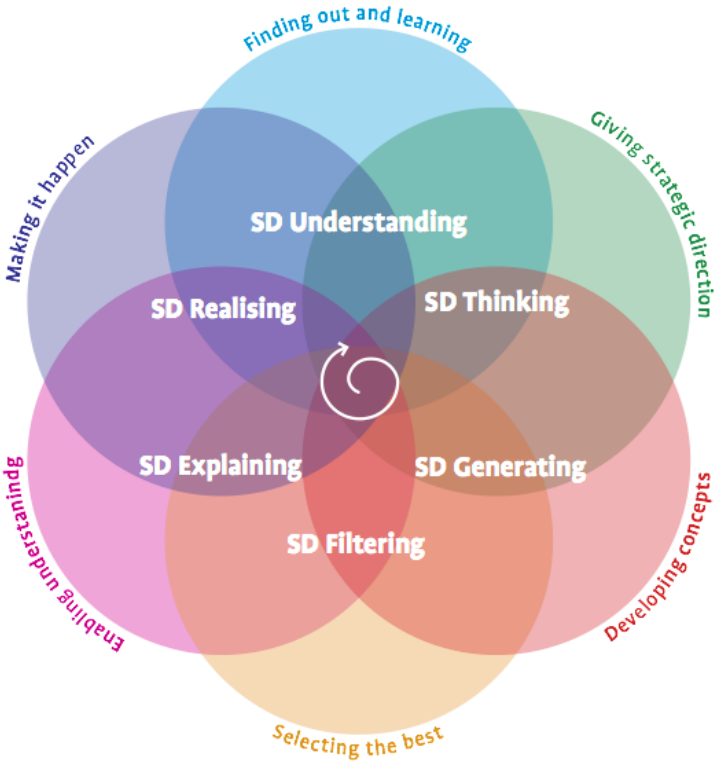

Figure 7: Service design process (Moritz 2005, 149)

5.1 Understanding

Understanding is the relation between the project and its reality where insights are generated that identify field the organizations should opt for according to what is right for the organization. Finding out and learning about the customer's needs motivations and context as well as business, technical and domain requirements and constraints while bearing in mind customer's goals in a methodical way. The requirement for this stage of the service design process is recognizing the objectives to make sure results are consistent with reality, applicable and suitable to the context. (Moritz 2005, 124-125.)

After identifying the challenge, insight into the customers' needs and motivations to whom the service is designed needs to be gathered. The service design process starts with recognizing the challenge from both organization's and customer's point of view. To ensure that the designed service responds to customers' needs, adequate empirical information is collected. After the data is gathered, the raw data is analyzed in order to find significant concerns of the target group and understand motives behind customers' actions. At this stage, the emphasis is placed on identifying the problem (Stickdorn & Schneider 2011, 128-129.)

5.1.1 Stakeholder map

Stakeholder map is a diagram of all the actors affected by the service that is particularly useful in the early stages of the design project. The point of using the metaphor of ecology is to emphasize that all of the actors in a service exchange some sort of value. The promise to the customer is fulfilled when actors provide utility and experience to customers through activities across various channels. Rather than having the value flow in one direction a healthy ecology is one in which everybody benefits. (Polaine et al. 2013, 81-83.)

A stakeholder map is a visual depiction of the various groups involved with a specific service. By representing customers, partner organizations and other stakeholders in this manner, the interaction between these groups can be analyzed. Stakeholder map is a good way to highlight the issues concerning each stakeholder group. The groups are categorized by their shared interest, their importance and influence. Thus, the map visualizes the complex environments surrounding most services, in which many actors have an effect on how well it is received and perceived. (Stickdorn & Schneider 2011, 150-151.)

5.1.2 Expert interview

In the service design context, an interview can be seen as a face-to-face discussion and having the objective of collecting data or the interviewee's opinion regarding a specific topic.

Interviews are followed by an analysis of the results. Interviews in the service design context are used to gain people's opinion or to gain insight regarding their experience or expectation. (Moritz 2005.)

The interview, however, is usually carried out also on the question level, ensuring that at least some of the key issues should be discussed and so that the study focus and target remained clear (Bryman 2008, 69). Interview questions are formulated as open as possible so that the views and thoughts of the interviewee could be mapped with depth and without prejudice. Bryman (2008, 442) warns that the questions should not be formulated to accurate although they should be based on the research problem.

The interview method used with the experts was the theme interview. It is a good method, in a sense that it is flexible and is not based on accurately predetermined questions. The interview is a flexible research method, because it is possible to jump to another topic, when it arises, and questions can be adapted to the situation. (Bryman 2008, 437.)

5.1.3 Focus group

A focus group discussion is carefully organized group discussion based on a single theme (Bryman 2004, 346). The goal is to elicit perceptions, feelings, attitudes and experiences through interaction from the participants in a familiar environment. Focus group interviews are user-centered and participatory by design; with the flexibility that can accommodate diverse needs. The participants are actively involved in the whole process. They are recognized as experts. They define for themselves what is important, and their contributions are considered to be valuable.

Focus groups allow for more interaction with the users and immediate answers to questions raised during the focus group. Unlike inquiry and formal usability testing, the focus group as a form of a group interview was used as a form of assessment as it do not demand the participation of actual users. Focus groups are generally conducted at early stages of product development, while surveys and questionnaires are generally used later in the product's life cycle. (Bryman 2004, 346-348.)

Focus group method is an interview with several people on a specific issue or topic that is explored in depth whereas group interviews often spam widely. In other words, with a focus group the researcher is interested in such things as how people respond to each other's views and build up the view out of the interaction that takes place within the group. There is an emphasis on a particular tightly defined topic and the accent is on upon interaction within the group and the joint construction of meaning. As such, the focus groups contain elements of two methods: the group interview, in which several people discuss a number of topics and

what is called *focused interview* in which interviewees are selected because they are involved in a specific situation and are asked about the involvement. Thus, the focused group method appends to the focused interview the elements of interaction within groups as an area of interest and is more focused than the group interview. (Bryman 2004, 345-346.)

5.2 Thinking: Affinity diagram

In the stage of thinking of service design process, a strategic direction is given to the project. This stage integrates the strategic considerations and the identification of direction and scope of service design project. The relevance of this stage is in that it sets the boundaries and margins and has an intermediary role between other stages. Consequently, after the understanding stage it is essential to specify which factors will be used in the next phase of service design generating to give direction and guidelines to the project. (Moritz 2005, 128.)

The requirement is to have as much information about context, customer and service provider as possible to be able to structure and align ideas. At this point, we move from understanding the context to revealing and outlining insights. This is when we begin to make sense of what we learned during the understanding phase and start to obtain key concepts out of sizeable and blurry data. When a certain point of comprehensibility is achieved we are in the position to recognize new chances for innovation that can be followed through to the generating phase. (Moritz 2005, 128-129; Kumar 2013, 130-131.)

After the interview sessions are held, the data is clustered into an affinity diagram or map. The affinity diagram is a method of grouping ideas, insights and options that help to add shape to a complex subject. It breaks down a complicated point at issue into broad categories that are then arranged into related groups. For each group, a title is created that describes the theme of each group. (Moritz 2005, 202.) Subsequently, a framework that indicates and documents the categories or themes, as well as the relationships between them is created. Clustering the elements informs the design process and allows the designer to look at the essence of the service in a more conceptual and abstract way. This, in turn, can facilitate reflecting on other situations that might have a similar process but deliver better outcomes. (Meroni & Sangiorgi 2011, 69-70.)

5.3 Generating: Feature tree

The generating stage of the service design process developing relevant, innovative and plausible ideas and creating role and design alternatives. Important ideas need to be developed and combined into solid concepts. The work is based on information and direction from under-

standing and thinking phase and in line with the strategy of the project. To create solid service concepts, different challenges need to be addressed with innovative ideas and concepts that are true to the needs of customers and organizations. (Moritz 2005, 132-133.) The generative stage within the service design process is closely linked to the stage of explaining as it enables to make ideas easy to understand and as graphic and tangible as possible. These are the two stages between which most of the iteration happen. (Stickdorn & Schneider 2011, 29.)

A tree diagram depicts various features i.e. needs, functions and elements of a service whereby each branch capture separate idea to accomplish that. Several ideas and concepts can be created by merging each one of the idea twigs of all the feature branches. (Moritz 2005, 215.) The tree diagram is good for analyzing the hierarchical nature of relationships among the branches. In a tree diagram, dots or circles represent entities and lines show connection between them. To facilitate easy understanding of the context, the tree diagrams usually show several levels in the hierarchy. This method is most useful for data in which branches have hierarchies, and understanding diversity between levels is important for getting insights about the context. (Kumar 2013, 156-57.)

5.4 Filtering: SWOT analysis

Filtering is a category of service design process that involves selecting ideas and combining concepts and identifying clusters and segments. This means selecting the most relevant ideas and solutions and evaluating them against the strategic criteria or the least technical effort. As service design is an iterative process, this stage is based on the results established in service design thinking. (Moritz 2005, 136-137.) The designer is primarily concerned with challenging key assumptions about where solution concepts will be found and constantly communicating those evaluations both internally and externally. The mindset is challenging assumptions, exploring ideas yet paying attention to the limits, and seeking clearly added value of the service. (Kumar 2013, 196-197.)

SWOT analysis is a helpful way to identify service's strengths and weaknesses and assess the opportunities and threats it deals with (Mortitz 2005, 223). The aim is to identify the extent to which strengths and weaknesses are relevant to, or capable of dealing with, the changes taking place in the business environment. A SWOT can produce long lists of apparent strengths, weaknesses, opportunities and threats, whereas what matters is to be clear about what is important and what is less important. It is an engaging and simple tool useful in summarizing and combining analysis made in other categories of the service design process. It is

essential to define basic goals considered for the innovation, and clarify the reasons for pursuing that direction. Findings are summarized into a 2 x 2 SWOT diagram with no more than seven or eight statements per quadrant. (Kumar 2013, 80-81).

5.5 Explaining: Rough prototyping

Service design explaining is considered necessary for common understanding of service experiences. Service design explaining includes visualization of ideas and concepts that give decision makers and other stakeholders access to future concepts. This stage of service design process can work with different techniques, but it aims to create shared understanding by way of hand sketches to real life prototypes whereby different levels of abstraction and detail can be shown. For this phase of service design process to be effective, a thorough consideration of the results in the understanding phase is necessary for the well-defined purpose and target group of the results. (Moritz 2005, 140-141.)

Rough prototyping is rapid and simple way to represent ideas. Rough prototyping is invaluable for numerous reasons. Firstly, prototypes are exploratory in that by creating something quickly, we can tap into latent needs that did not come out in research. Secondly, it helps to work out who the service is for. By prototyping quickly, it becomes much clearer which combination of benefits and approach is more appropriate for the target user. Finally, it allows the designer to uncover further opportunities as the service develops through prototyping. In developing the model for the service, the designer's role is to keep in mind what is beneficial to the end users, as well as the principles of concept. (Meroni & Sangiorgi 2011, 136-137.) As opposed to experiencing prototype, rough prototyping is quick and unrefined. It is used to try ideas out rapidly, which in turn often generates new ideas and sparks possibilities. (Moritz 2005, 229.)

5.6 Realizing: Use cases

Service design realizing phase takes account of developing, specifying and implementing solutions and prototypes. A number of means are used to realize a service depending on its complexity, and it brings in everything needed to plan and specify the service. At this stage, it needs to be clear what the concept and purpose are and how different components are linked to each other. It is the transition of an intangible idea into a tangible form. As we go through the process, prototypes have become more refined and real, which, as a result demonstrates the value our innovation brings to the end users. (Moritz 2005, 144-145.)

The use case describes how the system helps a user achieve their objective. One of the biggest differences from traditional requirements specifications is in the level of detail. The language in which the use case is composed will be basic, and the writer of a use case must avoid technical terminology. A use case will not consist of too much context about the user or their emotional feedback to an interaction. Use cases are illustration of how a system replies to a request from a user. Use cases are required, due to the fact that they will demonstrate how systems react when they are utilized. Unlike a user scenario, use case is more orientated to the system's habits instead of the user. (UX Methods & Deliverables.)

6 Collection and analysis of empirical data and results

The focus of this Chapter is on the empirical research methodology and the process for carrying out the research. The research is inspired by ethnography and the methods of inquiry include expert interviews and focus groups. Ethnography is seen here as a way to find a new perspective to the tradition of service management. (Korkman 2006, 55.)

6.1 Understanding

Professional service organization is an interesting research context, also due to the changes they have faced by moving from informality, self-organizing, and collegial control to increased managerial control and formalization their activities due to pressures regarding customer-orientation and cost-efficiency. The motivation of this stage of service design process was to gain understanding of the context.

6.1.1 Expert interviews

In the present study, an interview method was chosen as the most appropriate primary data collection method due to the nature of the research questions, the scope of the theoretical framework, and the limitations in the research project where the data was to be collected. Interview data provides insights into organizational members' understanding of and opinions about organizational challenges and the customer-centric activities, as well as their motives for their actions.

Based on initial problem formulation, empirical data was collected during 2012–2013 and initial analysis was made after each interview round. The data was collected in a fixed time period due to the timing of the research project. The plan of the research was based on identifying main candidates that had relevant knowledge about the issue of research. The expert interviews focused on the area of knowledge of the respondent, and in principle more than one person was selected per department. First interview was conducted with two legal professionals on January 8th, 2013 (Appendix 1) while second interview was held with the development manager of the Legal Department on June 23rd 2013 (Appendix 2). Each interview lasted approximately 1.5 – 2 hours. The interview themes were derived from the theoretical framework.

The candidates representing different positions and roles were assumed to have diverse views on the issue under research. Therefore, this was used as a selection criterion, which allowed covering a broader area of the topic and constructing a more coherent view. The interviews were semi-structured: open-ended questions related to general themes were discussed with

all interviewees. The aim of this design was to ensure that main themes were discussed with each interviewee in order to compare different viewpoints across positions and organizations. The interviewees were sent a short description of the themes and objectives of the research prior to their interview.

Before beginning the interview, it was explained to the respondent the criteria by which confidentiality was ascertained in the research. While interviews were the main data collection method, other materials and documents that are available publicly were also used. These materials were used as sources of secondary data, providing additional details and validating the material generated by the interviews.

Interviews were carried out in order to gain an expert viewpoint to the topic of value creation in the professional services and the channels through which the customer organizations interact with the services. The interviewees were provided with the interview themes beforehand on their own request. Comprehensive notes were taken during the interview, and interviews were transcribed to the letter for the data analysis purposes.

The interview was arranged around the following three themes: 1) What role do the services you provide have in the customers' own processes? 2) How do you anticipate the unarticulated needs of the customers and offer solutions proactively? 3) How do you perceive the customer-centric approach to evolve in the new service development in the future? The interview with the development manager was organized around one theme: does the Finnish Centre for Pension take customer-centric perspective in the development of the *Työeläkelakipalvelu* service?

After presenting the research project to the interviewee, the interviewees were asked to describe his/her work and provide an overview of the organization. The Interviewees were then asked to describe organizational challenges in delivering customer-centric expert solutions. Supporting questions were asked if the interviewee did not recall any activities. The interviewees were then asked to describe who was involved in these activities and how the interviewee himself/herself had participated. They were also asked to describe the management of these activities, and the factors that enhance or restrict them. The interviews were transcribed, and the resulting texts were used in the data analysis.

Secondly, the interviewees' stories were compared against each other to fill in missing pieces or to explore contradictions in the data. The aim was to form coherent descriptions of the phenomenon by comparing and to contrast these pieces of information in a certain context. Thirdly, secondary data was used to support insights gained from interviews, and to locate each interviewee in a formal organizational chart. The data included documentation related

to an organization's strategy, descriptions of innovation processes and tools used in those processes, descriptions services and organizational structures, as well as annual reports and some other public material.

During the course of the interview, it was made possible for the interviewees to discuss the themes they deemed important as they came up spontaneously. The interviewer made sure that all themes were discussed and later returned to themes that were not fully considered. Each response to a theme was followed by a sub-theme that the respondent could consider. In closing the interview, the respondents were asked if they wished to add something and if they had any question of their own. At this instant, the interview was closed, and feedback regarding the discussed themes was shared.

The interview was considered valuable, and the interviewees felt that the discussed issues caused them to reflect on things from a fresh perspective. The reliability was validated by avoided leading questions or associative wording in themes. As several interviews were conducted in the organization, the truthfulness of the insights provided by interviewees was realized by comparison. The main narrative is categorized with the help of the themes. After the interviews and focus group discussions had been transcribed, all the significant pieces were thematically organized into one structure. The themes adhered to the research questions, and were iterated with the literature to find commonality between the two. The quotes from the expert interviews and focus group discussion are utilized to underscore attitudes and indications.

6.1.2 Results of expert interviews

The research was conducted with the aim of understanding organizational challenges and gaining perspective on customer experience. The focus was placed on internal communication and collaboration with customers characterized by complex networks of multi-organizational relationships. Based on the interview results, the success of a service organization is dependent on its ability to recognize the complexity of business activities of the customer organizations and on aligning service channels for a cost-effective customer experience.

With the broad range of earnings-related pension expertise, the Finnish Centre for Pensions is seeking ways to be more customer-centric, collaborative and flexible. The interviewees provided a great deal of information with regard to the current status customer-centricity in the Finnish Centre for Pensions. The data collected in the interview was used towards developing an understanding how customers are affected by the different areas of the business. It appears that the customer experience is affected as a result of the "silo effect"- the organizational structures that are not aligned.

However, customers also seem to be at the center of the solution. There has been increasing interest in involving customers in the design of services and, in fact, it has been considered as an important topic. The Legal Department provides statutory expert's advice and experience across the various channels. Customers return the value to the Finnish Centre for Pensions through co-operation, information and feedback. This is used to improve services and gather experiences regarding needs and desires of the customers and different stakeholders. Collaboration with customers in the service development in the Finnish Centre for Pensions has regularly increased, and the needs of the organizational customers are observed by taking them on the various collaborative projects and working groups.

The Finnish Centre for Pensions is an organization trying to close the gaps between departments so that employees with different responsibilities work on a more unified service delivery and most importantly a more consistent customer experience. The findings from the interviews suggest that the strong focus on delivering the best possible customer experience can help the Finnish Centre for Pensions in mapping internal and external front-end activities. Aligning business processes and departments with the customer's processes creates a painless experience for both customers and employees.

The statutory role of the Finnish Centre for Pensions is interpretation of legal texts. The Finnish Centre for Pensions offers professional business services through various service channels that need to work together for success. Clarifying the role of each channel in the customer experience and making key points of interdependency between channels clear is the first step in connecting the organization to meet customers' expectations.

In order to meet the often inherent needs of its customers, the Legal Department organizes various briefings, publications and releases, courses, especially on the international and EU-directives. They also engage via e-mail in an unofficial exchange of legal opinions and interpretation of EU-directives with the pension insurance companies, the Social Security Institution (Kela) and other stakeholders. However, the T*yöeläkelakipalvelu* service is a channel that has a vital role in the overall customer experience. The Finnish Centre for Pensions offers solutions and guidelines when it comes to law reform or new legislation. The pension insurance organizations that need the expert legal advice and the guidelines on the EU-pension application process, for example, benefit from the *Työeläkelakipalvelu* service.

Equally, understanding the wider context of customer experience is essential as it is mainly influenced by competitors, partners and other actors and factors. According to the interviewees, understanding of customers' organizational structure and daily processes is important, as well as understanding of the social security in Finland in general. Their own activities go hand

in hand with the processes of client organizations when it comes to, for example, EU Pensions because only in that way can they perceive the entire status of the end customer/pensioner.

Customers live in business networks, and they are influenced by them and often even determine the latent customer needs. It is important to understand the influences on customer external factors and actors such as regulations, technology and economics. In order to optimize the customer organization's position in the network, the Finnish Centre for Pensions seek to understand these relationships as a path to better strategies and services.

The Finnish Centre for Pensions shares the expertise earnings-related pension industry to help business customers' organizations plan and manage their organizations better. If they can customers with these concerns, they have become more relevant and valued. This approach builds long-lasting relationships where customers have confidence in a trustworthy knowledge and experience. The *Työeläkelakipalvelu* service has the potential to present knowledge in such a way that it becomes relevant to customers and help them build competence in eliminating the risk and staying informed. Industry knowledge allows pension insurance organizations to offer high-value consulting to their end-customers.

6.1.3 Focus group

The focus group discussion was held during the regular monthly meeting on 13.2.2013 (Appendix 3). Where focus groups take place is an important consideration to the success of the method. The ideal environment is one that is non-threatening and permissive that promotes openness and honesty. Overall, the premises were familiar to the group.

The user in the focus groups comprised of five representatives of earning-related pension providers as well as two professionals of the provider organization. As the focus group format was a new experience for all the participants, it was necessary to provide a detailed explanation of the ground rules, the procedure and the rationale for their involvement. The importance of honest, individual answers was stressed. Emphasis was placed on the fact that the focus group was not a test situation, but an inquiry into the user's perceptions and beliefs about the services which were considered to be vital to the success of the research.

Letting the group knows that they are, in fact, the "content" experts in the research process and expressing genuine interest in hearing what they have to say was considered to be important as it conveys the sentiment that their opinions are indeed of value. Confidentiality was also discussed. To ease the participants concerns, it was emphasized that the information obtained from the focus groups was for the research purposes. To conclude the session, the main points to emerge from the discussion were summarized, and the participants were given

the opportunity to ask questions. Each tape was subsequently transcribed verbatim by the researcher.

Focus groups consisted of multiple users whose interaction raised additional issues of interest. The group interview commenced with questions about their daily business, schedule, habits and patterns. The intent was to learn as much as possible about their experiences and to identify the points of friction with the *Työeläkelakipalvelu* as it is at present. Other issues discussed dealt with their expectations and preferences. The material was used to create personas, service blueprint and role script.

Focus groups were used to gather information about users' experiences and preferences. The viewpoint of research was to learn and emphasize users and business rather than technology. The starting point was to learn about the usability of the present *Työeläkelakiplavelu* service, frequency of use, and user experience of the existing service. The idea was to gain as much information as possible about the current state of the service from as many points of view as possible. This has proved to be useful information because the thesis attempts to develop a new service concept around the core service.

The researcher took a role as facilitator, but the main interactions took place between participants, whose responses built on and reacted to each other's. Furthermore, the composition of a focus group had an effect on the dynamic and outcome in terms of data gathered. The focus group discussions emphasized objective observation of what the participants say. These were recorded and analyzed to reveal important things about participants' habits and choices as they relate to design. However, observation is not enough. The subjective impressions of people's motivations, emotions, values, and preferences are also important to understand because it is these that make up user experiences. This is where we need empathy in order to identify with user's unstated needs based on observation of their expressions and behavior.

6.1.4 Results of focus group

The participants in the focus groups discussion all thought that *Työeläkelakipalvelu* is one of the most important services provided by the Finnish Centre for Pensions to the pension scheme (Figure 8). There one can find the law implementation guidelines, the existing legislation and the old, as well as the legal cases data bank and the most important decisions made by the Insurance Court (Vakuutusoikeus). There are also index and the time series of all the information that pension provider requires when making pension decisions.

From the focus group discussions conducted with pension funding organizations, a desire was expressed towards a service that supports end-user needs and offers comprehensive

knowledge on earnings-related pensions from various perspectives instead of previous “si-loed” and “one-dimensional” service. The main request concerns clustering of content and streamlining of service that corresponds user requirements of modern-day.

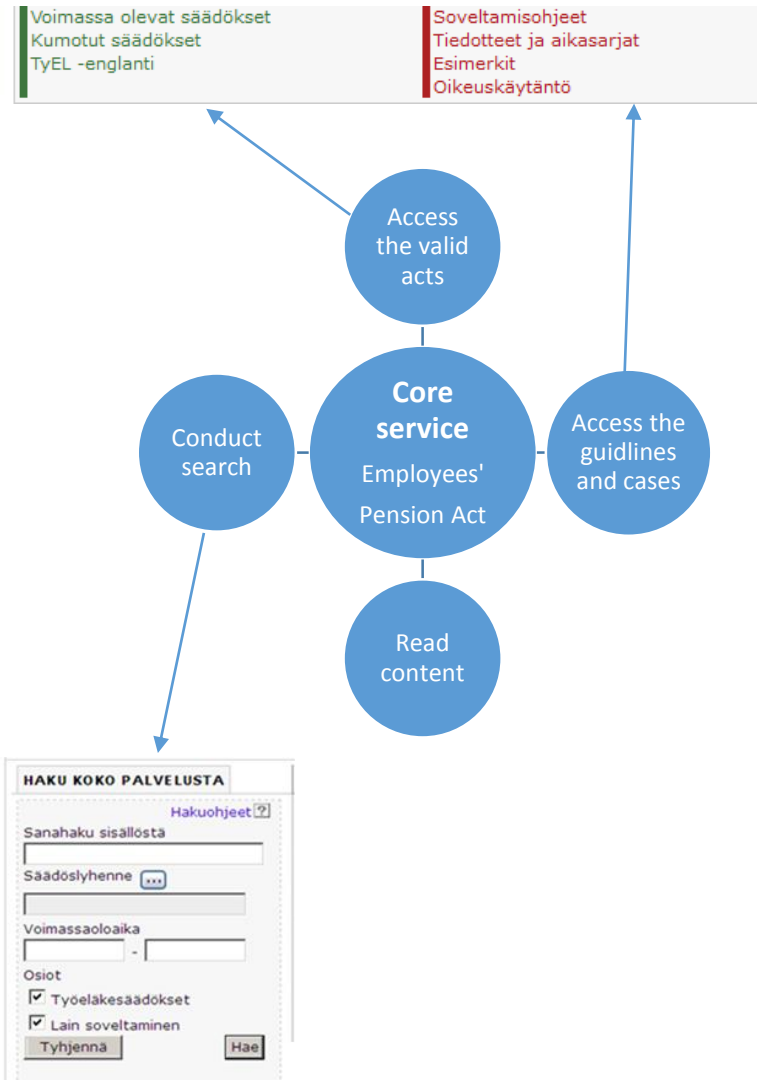

Figure 8: The core tasks of the present web-based *Työeläkelakipalvelu* service

When asked about the development proposals, rather many were hoping for the further clarification of the law implementation guidelines. Participants hope for “clarifying the implementation guidelines and earnings-related pension service, as well as making information search easy and logical “. The implementation guidelines could be made more relevant to the daily business activities of the pension providers because “often keyword is not found and “sometimes old paper information circulars would have been more useful”. Search and navigation should work better and “the service is in the need of reform”.

Participants feel that a new user-friendly service is needed, which in practice means a good usability. It should be easier for user to find the information they want more quickly, a clear

content structure, and better search capabilities. For example, when one searches for information, such as the starting date of old-age pension, one should get all information related to this topic, such as application rules, regulations, and case law.

Työeläkelakipalvelu aims to be a business service designed with the user-centered content in mind. However, as found during focus group discussions the present service often prefers quantity over quality leaving the customers, who are information seekers, confused as to the choices need to make during navigation.

Furthermore, the participants in the focus group discussion agreed that the content could be customized depending on the customer reading it and relevant to their needs and requirements. Each of the customers is different and so are their motivations for engaging with the service. The users wish to have a content that is relevant to each end user based on their business background. Sharing good content with a customer is suitable but providing the customer with the content that is based on their own position and sector would be much more effective.

Customers see the organization as a whole, but frequently have fragmented experiences. Customers generally see the organization as a whole – but often experience disjointed processes, practices and systems. Redesigning various processes and systems to improve customer experience may not be the solution – as they may not be the problem! Organizations often have a fragmented view of their customers – and even of their own business.

As the discussion found, the qualities of service most important to organisational customers are reliability and adaptability. The service provider must demonstrate an ability to resolve the customer's problem. The service provider must not only understand the dimensions of the problem, but must also provide solutions to it: hence the service provider must demonstrate a problem-solving ability, and the ability to pass on the solution to the customers. Besides the service features, the value is created through the benefits the service brings and the impact on the customer's own business operation.

6.1.5 Stakeholder map

The Finnish earnings-related pension scheme is decentralized. Private pension providers manage pension insurance policies and pay out pensions. The public sector has its own pension provider. Legislation pertaining to earnings-related pension scheme is developed jointly between the state, employers, employees and the self-employed. The national pension scheme is managed by the Social Insurance Institution of Finland (Kela) under the supervision of Parliament.

The basic actors in a service ecology in Figure 9 are divided into two group relating to the implantation of pension provision on the left side and evaluation and development of pension provision on the right. The statutory co-operation body, the Finnish Centre for Pensions is at the core of the earnings-related pension field. The Finnish Centre for Pensions is an expert in earnings-related pension security and produces services for all parties to the earnings-related pension scheme. It carries out research and background surveys and collect statistics on the evaluation and development of earnings-related pension scheme and the follow-up of reforms. Additionally, the Finnish Centre for Pensions plans, communicates and participates in the preparation of legislation.

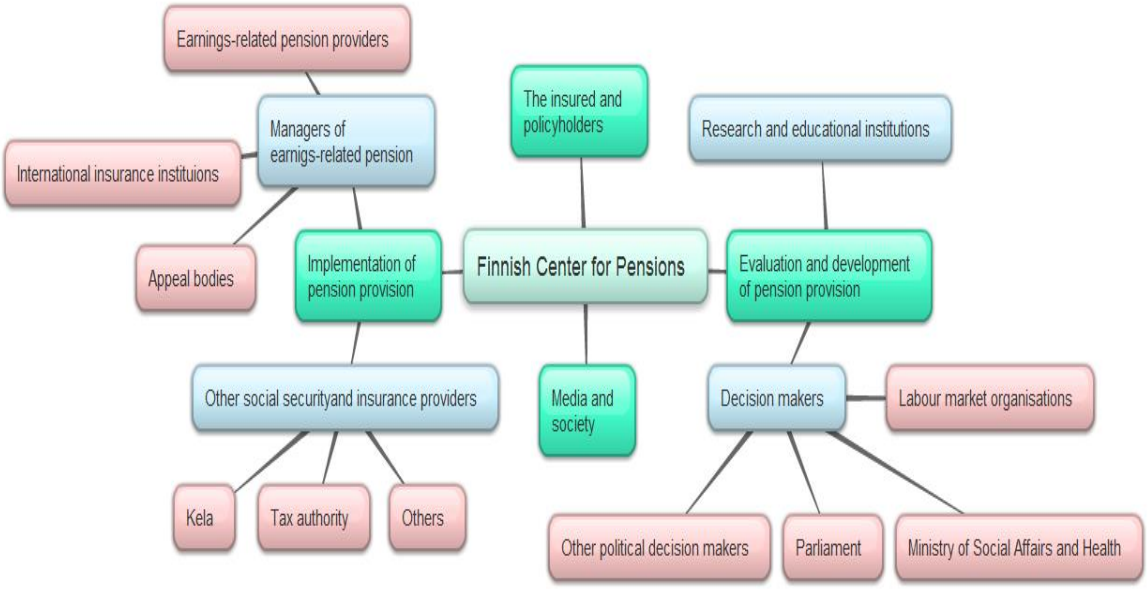

Figure 9: The stakeholder map of the Finnish Centre for Pensions

The expertise and services of the Finnish Centre for Pensions are utilized by earnings-related pension providers in the public and private sector, institutions managing social security and insurance, the authorities, decision-makers, research and education institutions, and the media and citizens.

The insured, employees and self-employed, may arrange their earnings-related pension security with a pension provider of their choice, such as an earnings-related pension provider, private pension fund or industry wide pension fund. The insured pay the earnings-related provision through earnings-related pension contributions. For example, pension providers require a variety of information spanning the whole of the person's career when making a pension decision. Pension providers turn to the Finnish Centre for Pensions for that information. The Finnish Centre for Pensions also assists in the interpretations of earnings-related pension legisla-

tion by providing guidelines and instances. The Finnish Centre for Pensions supports the political decision-making and labor market organizations by carrying our unbiased research and surveys on matters relating to earnings-related pension.

6.2 Thinking: Affinity diagram

Työeläkelakipalvelu service concept aims to offer digital professional services in a user-centric way. Current *Työeläkelakipalvelu* was published in 2004. After this, there was some small-term improvements in the war the service was produced. The main objective of the service concept is to design a high-quality digital service package, which is available according to the user's needs in different subject areas. There is also other improvement goals concerning content and content production improvement goals, which are described in more detail in the Figure 10.

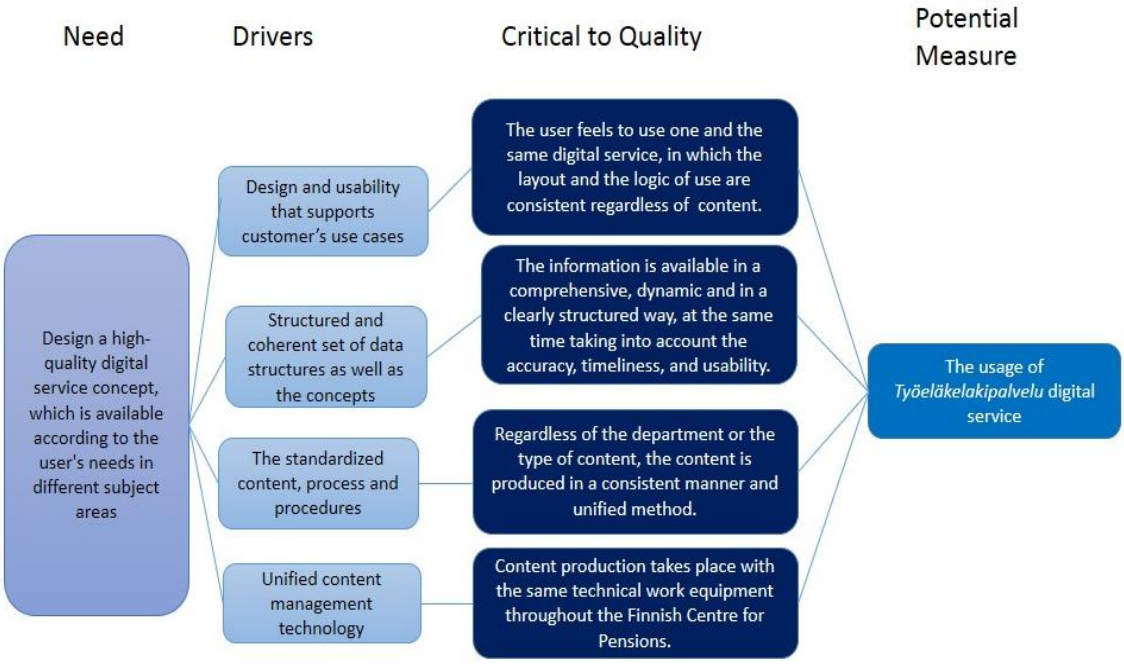

Figure 10: Affinity diagram for the *Työeläkelakipalvelu* digital service

The biggest need for change in the service has focused on the need for substantive reform. The previous service's coverage needs to be expanded and the existing content modernized in a structurally significant way so that a multi-dimensional and dynamic functionality can be realized. This requires in-depth characterization and re-design of all of the content. Most of the design of service concept has focused on doing just that - substantive re- design of content. The service concept takes into account the trends in the development of the digital services and the technical feasibility.

One of the tasks of the Finnish Centre for Pensions is providing recommendation on the application of legislation on earnings-related pensions. In practice, the term used for these recommendations is guidelines, although they are not binding to the pension funding organizations. These guidelines will be published in the new *Työeläkelakipalvelu* service clustered with the rest of the guidelines. The tasks of the different departments are closely linked to the creation and publication of the earnings-related pension legislation content.

According to the Rules of Procedure of the Finnish Centre for Pensions, providing the guidelines is the responsibility of the legal, planning and registration services departments. The legal department is responsible for the earnings-related pension legislation and the providing instructions on the procedure necessary for resolving earnings-related pensions, the legislation and the application of legislation, as well as providing the information on the matters above. Planning Department is responsible for the preparation of pension-related recommendations, drawing up the criteria for the pension and other benefits' cost-sharing criteria, as well as the recommendations. Register Services Department is responsible for instructing on the use of records and registration applications.

6.3 Generating: Feature tree

The core services offered was analyzed and sought to identify the existence of potential new services that would bring a clear added value to the service users. Service, delivery of the service and the related process have been examined, as well as customer's point of view. Customers' needs and wishes and customer opinions were collected and taken into account in the development of service.

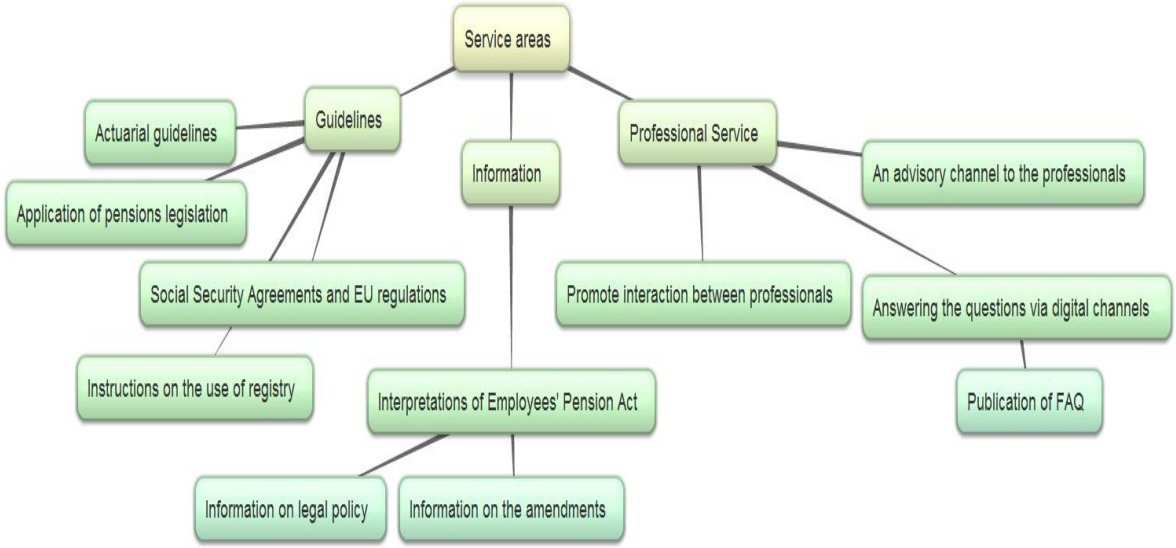

Figure 11: Services provided to the customer by the service concept

Työeläkelakipalvelu service concept can act as an advisory cannel to the professionals in the earnings-related pension system, which offers professional services relating to the application of Employees' Pension Act, as well as the actuarial professional services. This means for example, answering the questions via digital channels and publication of frequently asked questions. The service aims to promote interaction between professionals, coordinate service process, and reduce a flood of information coming to the professionals in the form of e-mails.

One of the most important benefits of the *Työeläkelakipalvelu* service concept from the customers point of view in Figure 12 is more comprehensive content and a fast discovery of content. More cohesive content, both public and secure content, is found in one structure. A fast discovery of content means efficient and comprehensive search, clustering of search results (filtering, cropping, sizing) as well as content recommendation.

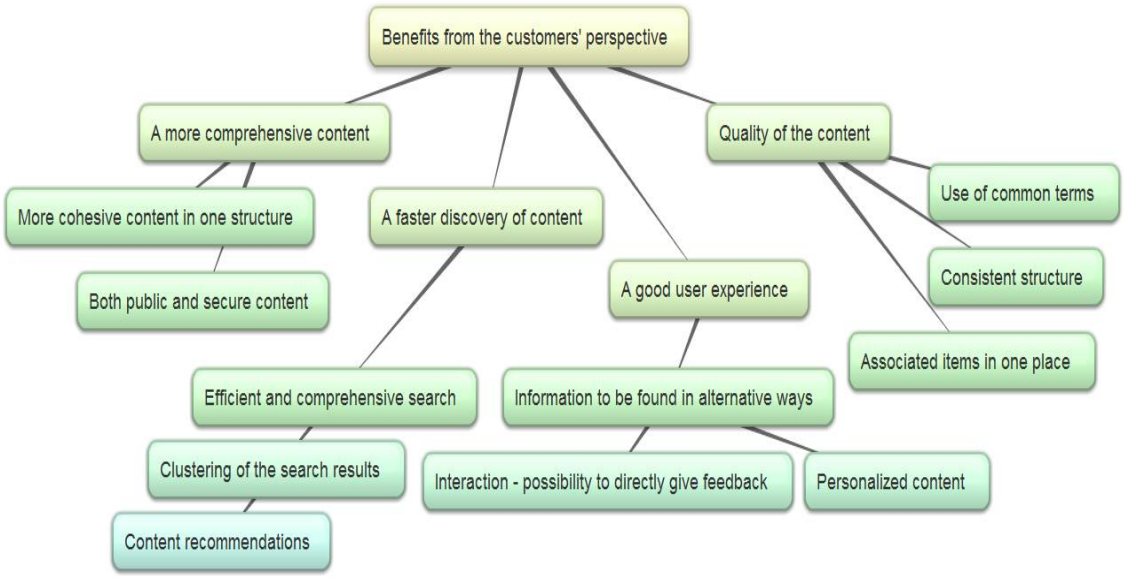

Figure 12: Benefits from the perspective of the customer

A basic characteristic of the *Työeläkelakipalvelu* service is that it creates value for customers every time they use it through an online interface and thus conduct their daily business activities. If a service concept is well designed, customers dont need to spend time and money being in daily contact with the frontline staff. The ovelooked opportunity in development of the service concept would be if the organisation does not see their customers as valuable assets in the delivery of service but as anonymous consumers of service. The digital environment has created enablers for new types of service delivery and value creation in services.

A good user experience in *Työeläkelakipalvelu* service concept is that information can be found in alternative ways, for example, through search, navigation, and reference. Interaction in envisioned through the possibility to directly give feedback on the implementation guideline. Further feature is personalized content, which means the user can select the desired data as well as summaries and views on the related issues. This in practice means less duplication of services and transparancy of information.

Increased information and quality of the content are futher features envisioned in the service concept. This means more information on what implementation guidelines are being made, or being updated, as well as, the possibility to view the schedule, feeds and the notifications of finalized guidelines. Quality of content entails all associated items in one place - not “siloed” content, consistent structure and use of common terms throughout the service.

The main benefits from the point of view of content creator displayed in Figure 13 is that the work processes are faster and more efficient. All updates can be found in one place and the process has a more fixed form compared to the previous. This mainly means that responsibilities are better known and the changes in the content visible to others during the writing work. Furthermore, one the main features is that it facilitates commenting, which allowns making comment that is directed to a document and/or an item in the document.

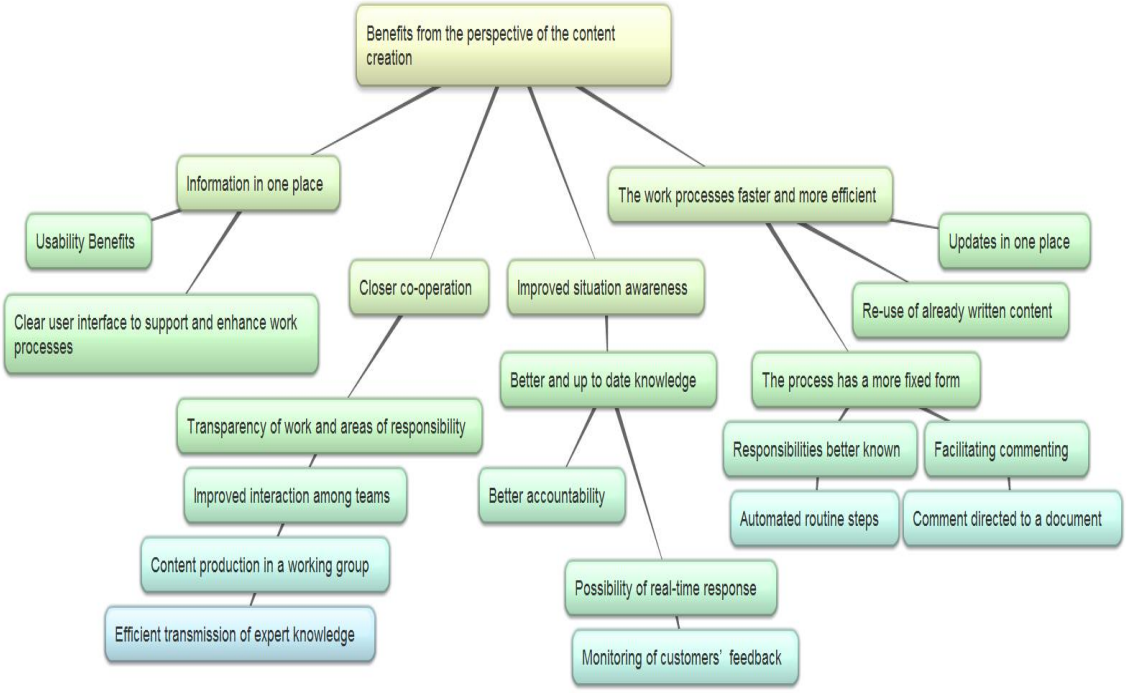

Figure 13: Benefits from the perspective of content creator

The service concept allows for an improved situation awareness. Better and up to date knowledge in changes in tasks and areas of responsibility and better accountability of ongoing and future work are important features. Moreover, a possibility of real-time response and monitoring of customers' feedback further facilitate content creation work process. Closer co-operation and transparency of work and areas of responsibility in other departments of the Finnish Center for Pensions and improved interaction among teams, departments, and divisions are an important result of the service. This further facilitates a more efficient transmission of expert knowledge between professionals and groups.

All information can be found in one place and ideas in the various stages of development can be compiled in one place and collectively viewed and commented. This is, for example, information on changes to the legislation, discussion and collection of expert knowledge stored in the form of such discussions. Background on the guideline, such as discussions, comments, etc. are clustered together for the later use. Data storage and the posibility of content-specific customer feedback are important usability benefits coming from the service concept. For content creators this means working more clearly through a single system and content being connected directly to the structure of the publication. All items are assembled behind a single user interface (documents, discussions, legal background, working groups, information). Essentially, a clear user interface to support and enhance work processes.

6.4 Filtering: SWOT analysis

A thorough review of the existing service is needed to ensure to keep the good segments while developing the image of the organization in the best way possible. The goal of the SWOT-analysis in Figure 14 is to consider the stakeholders' user experience of the *Työeläke-lakipalvelu* service concept as well as the organizational image profile of the Finnish Centre for Pensions.

As learned from the interviews and focus group discussions the Finnish Centre for Pensions is considered to be a reliable and competent actor. Instead, a more proactive and high public profile, increased cost-effectiveness, as well as the more visible role of in development of information systems in the field of earnings-related pension are needed. The participants in the focus group discussion whished for that a more proactive role of the Finnish Centre for Pensions in the development of earning-related pension scheme. However, people doing business on a daily basis give a more positive reviews for the Finnish Centre for Pension than those dealing less frequently. Mainly, the attributes such as clarity and cost-effectiveness are linked to the organizational image. A most critical attitude have those communicating with the Finnish Centre for Pensions about once a week.

A well designed user experience of the *Työeläkelakipalvelu* service concept would support development in positive direction of the organizational image among the stakeholders. Traditionally, the Finnish Centre for Pension has been held reliable but the *Työeläkelakipalvelu* service concept will further contribute to the flexibility and innovativeness. Participants in the focus group discussion see the Finnish Centre for Pensions as a competent and reliable but not a dynamic organization. Generally, flexibility and better design of implementation guidelines, brought on by streamline of the *Työeläkelakipalvelu* service, lean towards the tendency of a positive development.

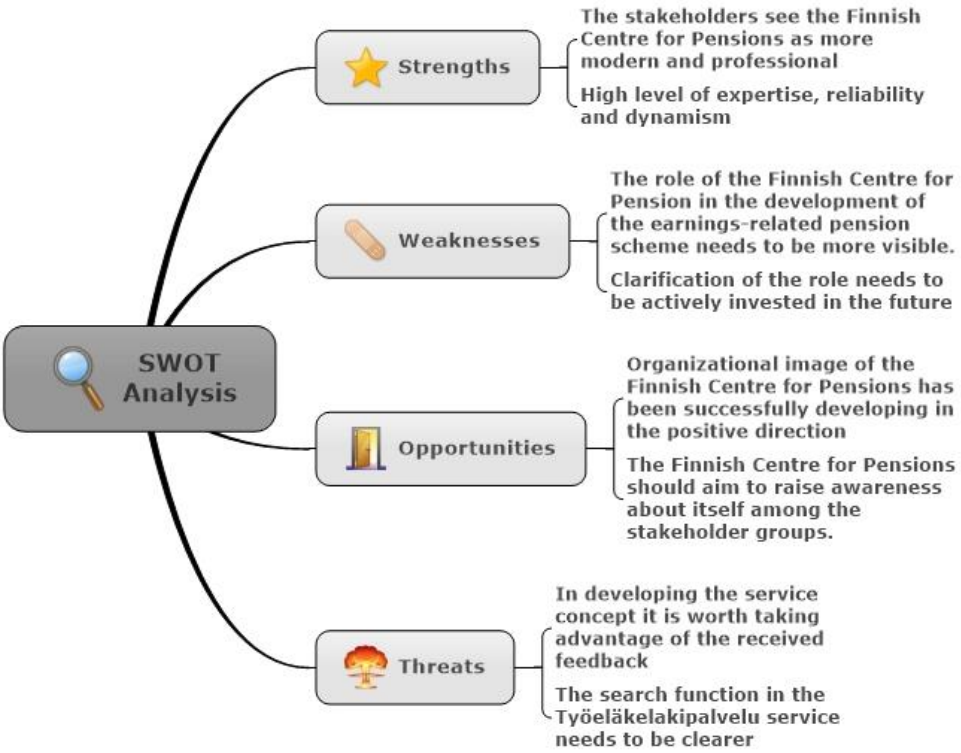

Figure 14: SWOT analysis of *Työeläkelakipalvelu* service

6.5 Explaining: Rough prototype

The content of a digital service is the most important item that creates value for the customer. The content that the provider of service has on their disposal will be of a farthermost importance in designing the service. The arrangement of content elements to facilitate user interface is related to the information architecture. Reviewing the information architecture is valuable in order to take steps to increase exposure of content that is most important within the service. (Garrett 2011, 31-32.)

The base content of the “pyramid” in Figure 15 is composed of the content, which operate as complementary or material offering additional information. "Pyramid" peak consists of the

material governing the implementation of the Employee's Pension Act. The content questions are essential to the ultimate user experience of the service. The range of content that is central to the service is consisted of the employee pension acts and regulations, pension rules, decisions of The Ministry of Social Affairs and Health, EU regulations and social security agreements, cost sharing criteria, the calculating criteria, terms and conditions for calculation.

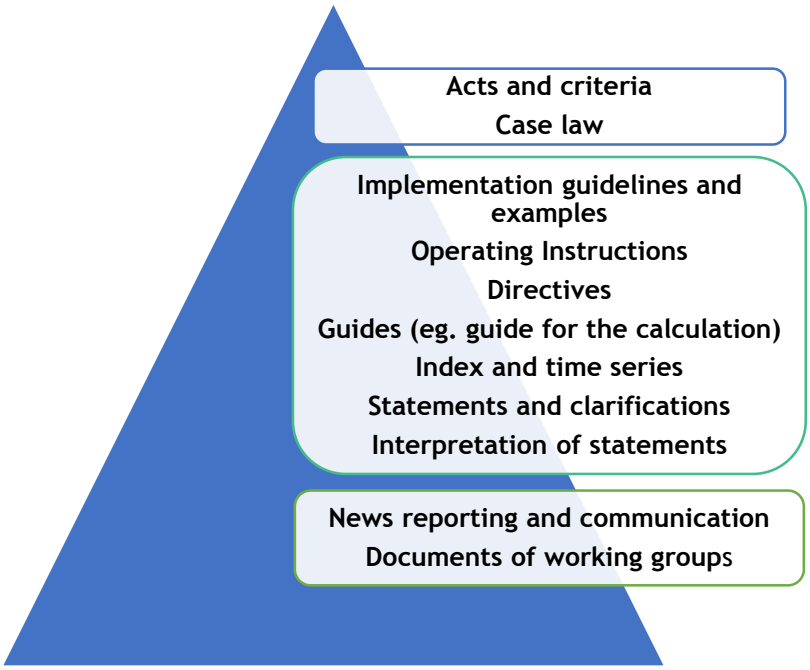

Figure 15: The types of content in the *Työeläkelakipalvelu* digital service

The case-law includes insurance law, the significant decisions made by the Pension Appeal body (*Työeläkeasioiden muutoksenhakulautakunta*), the major decisions made by the Finnish Centre for Pensions concerning the scope of implementation of the Employees' Pension Act, as well as selection of the verdicts by the European Court of Justice. Acts are earnings-related pension laws and regulations, EU regulations and social security agreements, cost sharing criteria, the calculating criteria and other subordinate legislation, such as the pension rules, terms and conditions, as well as additional benefits maps.

In terms of information architecture content creation a paragraph is the so-called "document level", which is connected to the metadata and keywords. Metadata as a term simply means "information about information" and it refers to a structured approach to communicating a fragment of content. (Garrett 2011, 98-99.) The law and the texts of the regulations are divided as shown in Figure 16 according to the main structure. Laws and regulations have to

have substantive links to other content. Transition from the existing to the revoked article/paragraph, and also the other way around should be easy. Last modified at points must be clearly visible.

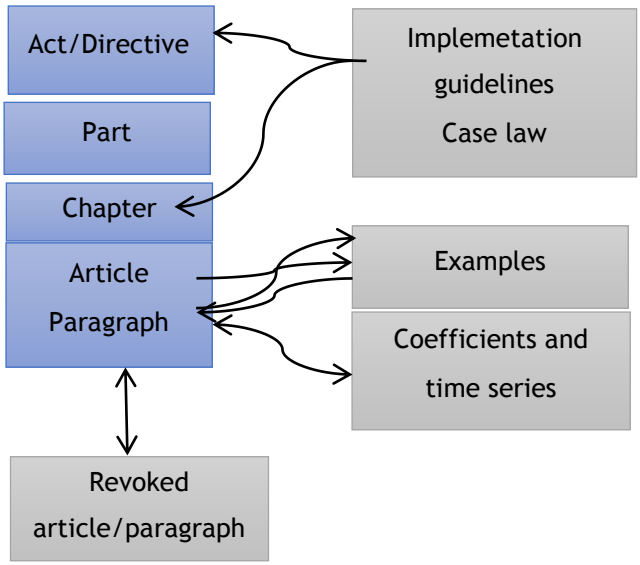

Figure 16: Relation of acts and directives to the rest of the content

For all intents and purposes, it would be challenging to implement information architecture without having the metadata. The more detailed information about the content, the more there is flexibility in structuring it, which is why is essential to use the same term in metadata throughout the service. By using the same term for each item in the content one can rely on automation to define the connection between the items in the content. (Garrett 2011, 100-101.) Laws and regulations are associated with the following metadata:

- Act No.
- Name of the act (in Finnish and Swedish)
- Abbreviation of the act (in Finnish and Swedish)
- Status (unapproved, approved, number/year)
- Subtitle (Finnish and Swedish)
- Content Type
- Article
- Amendment Act Number/year
- Type of benefit
- Progress in the pension matter
- Validity (in Finnish and Swedish)
- Duration (time and start date)
- Language

- Comment
- Ratio (revoked Act)
- Keywords.

A solid metadata can provide a faster and reliable way for user to find information (Garrett 2011, 101). Metadata will be connected to the Acts so that the semantic connections to other *Työeläkelakipalvelu* content can be created. Laws and regulations need to be able to be referred to from elsewhere in the service, as well as the level of article/paragraph. The reference to the law and regulations need to be enabled directly from the text content.

Case law are summaries of decisions of review bodies, as well as decisions (legally valid) of the Finnish Centre for Pensions, and the case-law treated as statements made by the Finnish Centre for Pensions. Case law has substantial contacts, including laws (in some cases even at the level of torque), and application guidelines. Legal cases are linked to the following metadata:

- Key words
- The decision makers
- File number
- Act (article and paragraph level)
- Type
- Case number
- Date
- The date of issue

Implementation guidelines are recommendations made by the Finnish Centre for Pensions to the pension providers on how provisions related to the enforcement of earnings-related pension legislation should be applied. Their purpose is to promote the uniform application of the legislation by the pension organizations. These include how the regulations affecting the earnings-related pension implementation should be applied. Implementation guidelines are meant to promote the uniform application of the private-sector pension legislation by pension institutions. As a content type implementation guidelines are an important part of the information content of the *Työeläkelakipalvelu* service. Guidelines appear to the user as single logical entities.

The examples illustrate the application practice and are complementary to, and clarifying the implementation guidelines. Examples may include not only the calculation examples related to the determining the pension and cost allocation but also illustrations and tables. Examples

include from the content creation and management point of view the implementation guidelines. Examples embody, complement, clarify and illustrate the guidelines. Examples may relate to more than one guideline, position or interpretation of the study and can be stored on the service after the adoption of the guidelines. The examples are widely various types of content: text, images, formulas and tables. Examples can be seen as a special case of the guidelines. Examples describe the following characteristics:

- Example can be presented as an advanced-level of guidelines.
- Examples may also relate to an entire guideline, so they can be featured in connection to the guideline with "*See also*"-type link or metadata formed a link. The same example can thus be used in many examples for application and, if necessary, may be made in single or multiple documents, for example, by the formation of an aggregated basis.
- Example needs to be able to be linked to a specific location in the guidelines text. The solution that serves the user of the service best is to place the example text in the text content of a given location, an example of which can be opened and, if necessary, be displayed.
- The information that it is an example is shown in metadata.
- Examples can include the examples on determination of pension and cost allocation in the calculation examples, tables, and animations.

The service needs to be able to recommend to the user are examples related to the content currently under consideration. Users will also be able to detect which contents of the guidelines the example illustrates.

Guides are calculation of cost-sharing related criteria. At the moment, the Finnish Centre for Pensions publishes calculation and cost-sharing criteria in PDF format etk.fi web service. The criteria used by the main pension providers. Changes in the criteria result from for example changes in legislation. The following metadata is related to the calculation criteria:

- Pensions Act
- The year
- The change of information (what and when changed)
- The date of endorsement criteria
- The effective date

Statements and clarifications are cross-cutting and concise in nature and providing information much wider in scope compared to the guidelines. The reports will be visible as a

semantic link to the rest of the content or “see also“ link. Studies are needs-driven and their content creation process is consistent, where applicable, with the general content production process.

Interpretation are comments, for example, statements provided by the Finnish Centre for Pensions relating to the application of the private- pension laws. Statements are conceptual in nature, additional information on the guideline. Statements are not necessarily directly related to the specific application guidelines. Interpretations involve the following background information:

- Minutes of meetings of the advisory groups, which usually includes a number of statements and related background information
- Annexes to the minutes of meetings, which may include underlying information for the statements

Statements give the Interpretation group, cost allocation group, other possible working groups. Statement will be able to connect (linking or a semantic connection created by meta data) to their application guidelines and regulations. The connection must also be made to the summaries. Interpretation statements' visibility will be limited to only pension provider organizations. Metadata related to the interpretation of the statements made should include:

- The name of the group issuing interpretation statement
- The meeting where the statement is addressed
- Information related to the date of the statement.

Navigation is a form of interface design that is modelled to presenting information areas. It is the lens through which the user can see the content structure and by which the user can move through it. (Garrett 2011, 109.) The aim is to build service which offers information about the earnings-related pension easy to use and comprehensive way and from different perspective. The main objective is to provide the guide texts, finding a number of alternative routes:

- Through the search
- Via the keywords (included only those keywords which are represented in the guide, for example, wage statistics)
- Semantic connections (including connections to the law)

The instructions must be available on display as information on the differences between the statutory and private insurance coverage. Sector-specific guidelines must be removed as a separate guidance. A user-formed examples (simulation, dynamic spreadsheets, and presentation of graphs) One of the requirements is interaction: feedback, questions, discussion, etc. The objective is a collective responsibility for the content creation in the Finnish Centre for Pensions (departments, network communications, producers of guidelines, etc.).

On content section, information architecture is concerned with creating navigational schemes that enable users to move through content successfully. Content structures form the descriptions according to the logical subject areas, which takes into account the links of substantive content to other entities. (Garrett 2011, 89.) Content structure is complemented by the metadata model (Figure 17), which allows the content analysis from various perspectives compared to the hierarchical structure of the description. The following diagram illustrates the marking procedures used in the structure descriptions.

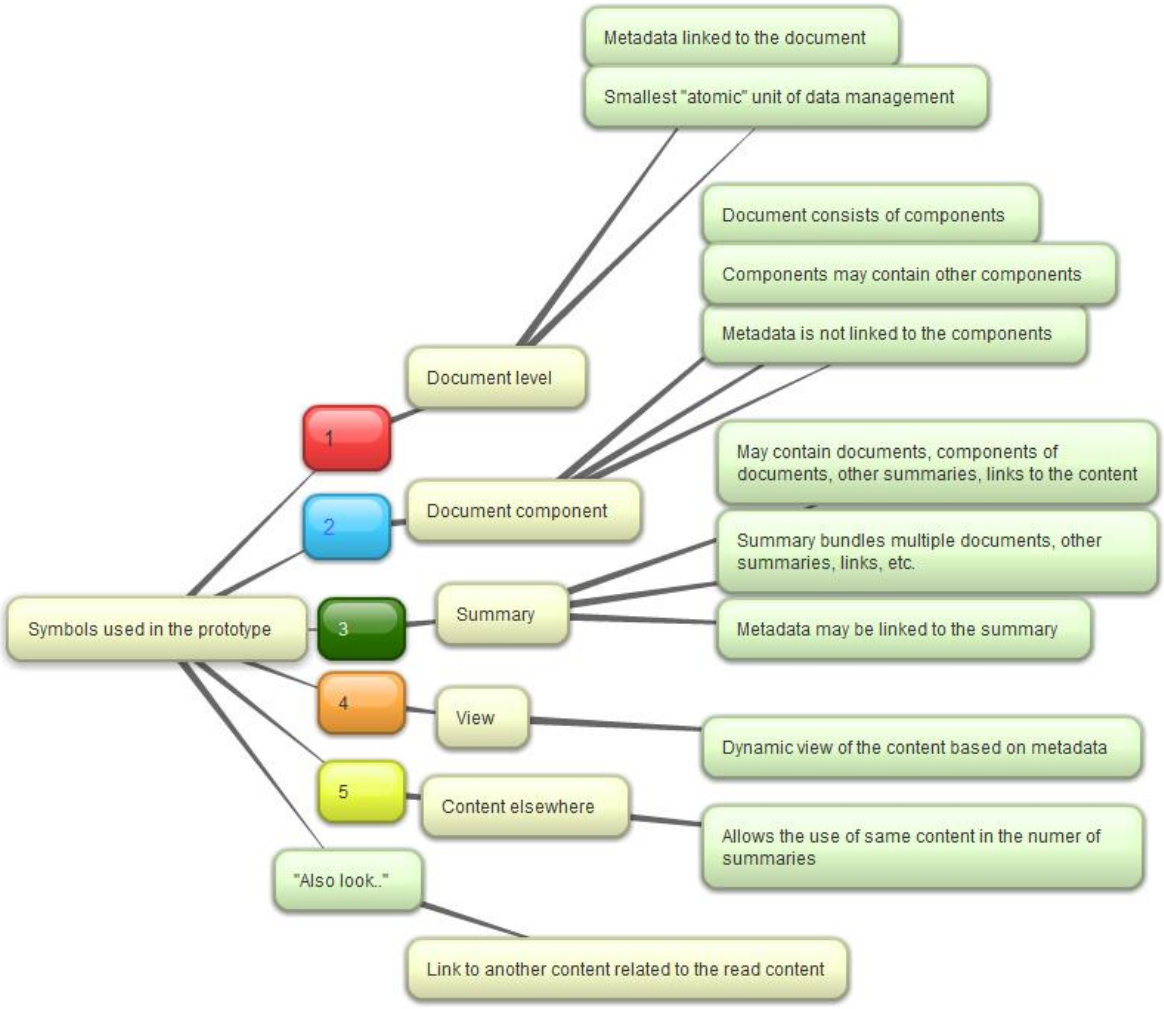

Figure 17: Taxonomy of content used in the prototype

However, the most significant sign of quality is not how many actions the activity takes, but whether each step seems sensible to the user and whether it follows naturally from the previous step. Typically, it is important its ability to accommodate growth and adapt to change. Eventually, the entire user experience including the content structure is built on understanding of the objectives of the organization and the needs of users. (Garrett 2011, 90-91.)

In the design of content in the rough prototype (Figure 18) attention was paid in particular to the following:

- Level of accuracy is reasonable - not too precise, not too general
- Structures are as consistent as possible among the different content areas
- Headline does not contain legal terms and titles are understandable - linguistically accurate and not “jargon”
- Semantic connections of content have been identified (“See also ... “connections)

- There is no overlapping of content
- There is no unnecessary cross-references
- Terms are consistent through the structures

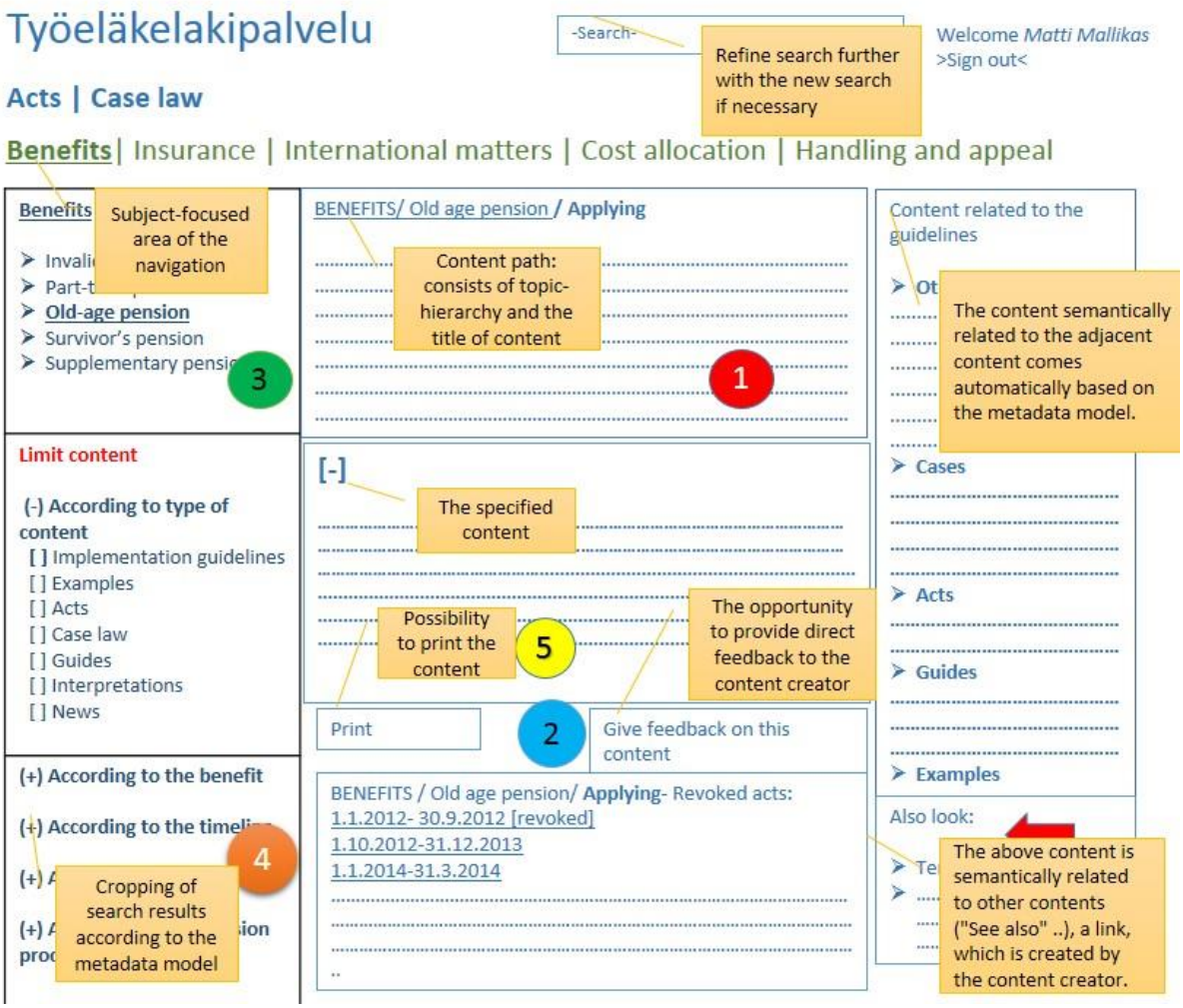

Figure 18: The rough prototype of *Työeläkelakipalvelu* service

In practice, the semantic connections can be implemented by connecting the *Työeläkelaki-palvelu* content (guidelines, examples, case law, acts, etc.) to metadata that the system is able to "understand " and to recognize the significance of content in relation to other content (Figure 19). This allows for the provision of related content to the user.

Figure 19: Metadata of the content may be restricted according to their attributes

In practice, all content needs to be equipped with metadata, in which case, regardless of the type of content can be provided to the user according to his needs, the use of intelligent and user-centered content (Figure 20). Metadata applications are following:

- Contents limitation
- Content classification
- Offering dynamic content for the user
- Semantic processing of content

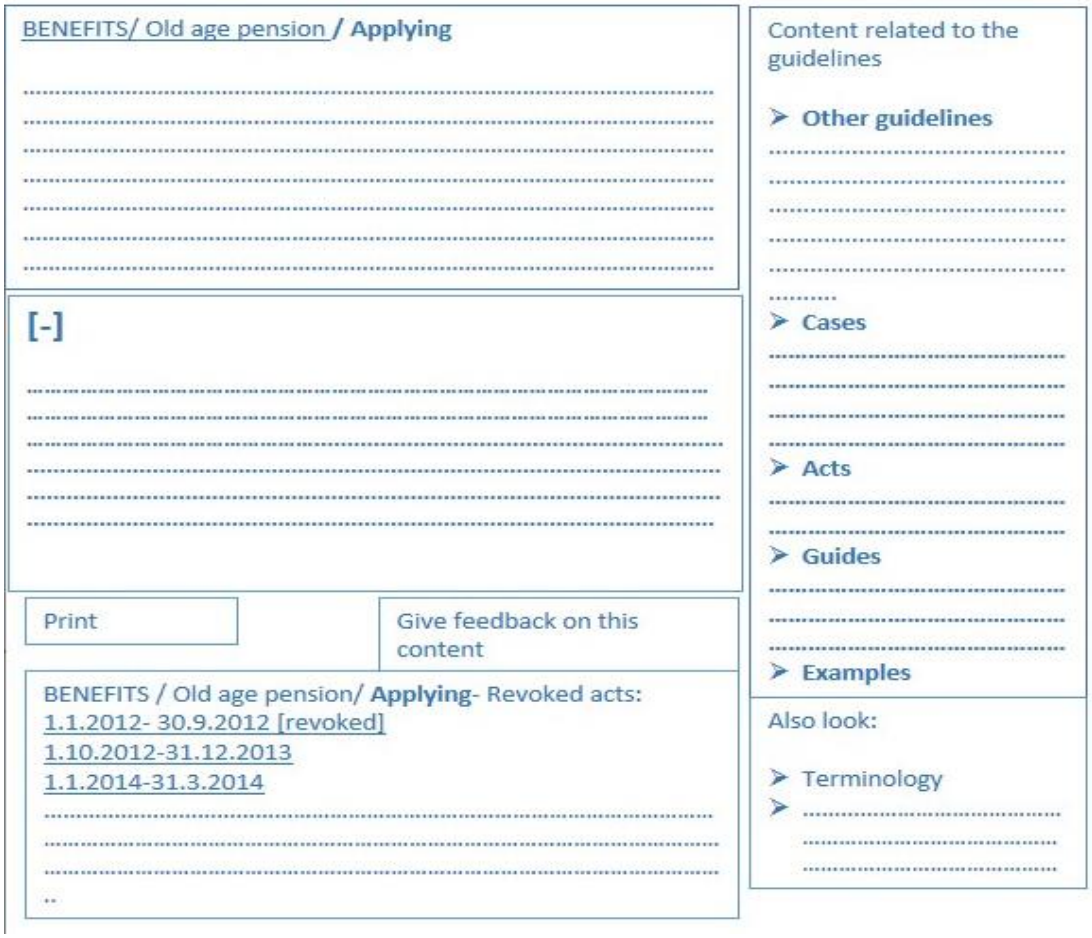

Figure 20: Metadata can be used to provide the user with automatic recommendations

6.6 Realizing: Use cases

Työeläkelakipalvelu service user cases and functional requirements are intended to be described in the most user-centered and practical way. The approach that was chosen was user roles. Each user role is one of the clear functional requirements, which the system and its underlying functional processes need to support. The service has a number of different users or user roles, and thus the requirements are slightly different. User roles were based on the following roles:

- Pension professional
- Legal professional
- Finance professional (including mathematicians)
- Insurance professional
- Content creator

The Table 2 is intended to identify the key contents according to the roles of the customers of service.

Role	**Example**	**Examples of content of *Työe-läkelakipalvelu***
Customer/Pension professional	Pension handlers, pension calculator, pension adviser, professionals working in the appeal body, registry experts	Guidelines (usually shown according to the type of benefit), examples, time series, interpretations, court cases, legislation, reports and operating Instructions
Customer/Legal professional	Lawyers, others working in the pension funding industry, the rapporteurs of appeal	Acts, applications of acts, examples, court cases, legal study material, interpretation of statements, minutes of meetings
Customer/Insurance professional	Insurance matters case handlers, pension advisors	Implementation guidelines (usually according to the insured person: an entrepreneur, employee); Legislation (primarily the valid acts); Court cases; Interpretation statements; Notifications and operating Instructions
Customer/Information system professional	Planner	Announcements and instructions
Customer/Financial professional	Costs distribution experts, mathematicians	The cost of distribution and the instructions on funding; Basis of calculation; Minutes of meetings (related to the cost-sharing)
Customer/International affairs professional	International insurance matters handlers, pension advisors	Implementation guidelines from an international perspective by region and country; Examples; Acts (EU-regulations, social security agreements, national legislation, legal cases); Minutes of meetings; Interpretation of statements

Role	Example	Examples of content of *Työeläkelakipalvelu*
Customer/Random user	Communications professional, trainers, consultants	-
Content creators	Content creators in various departments and stakeholders	Follow-up of content creation (own work)
Content creators/Commentators	Commentators in various departments and stakeholders	Content in the preparation phase
Content creator/Manager	Managers in the Finnish Centre for Pensions	Follow-up reports of content creation
Content creators/Translators	Translators in the Finnish Centre for Pensions	Content in preparation
Co-operation groups	Interpretation group, cost-sharing group, other working groups	Documents of the meetings; interpretations; Explanatory Notes

Table 2: The roles of the customers of *Työeläkelakipalvelu* service

User stories serve as a basis and a practical source of data for the use cases and functional requirements. User cases were identified and described on the basis of a user stories. The following Figure 20 and Figure 21 show the use cases relating to the service and content creation work.

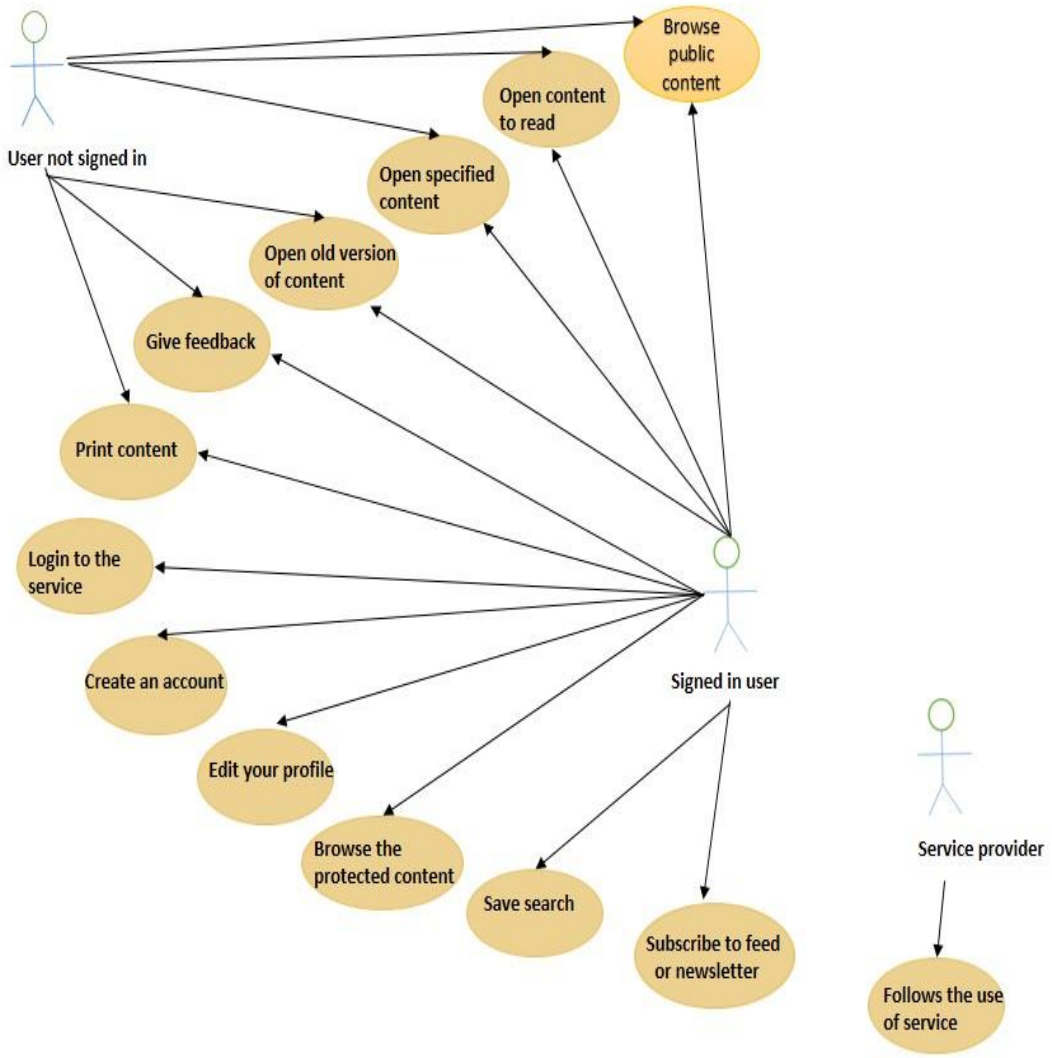

Figure 21: Use cases of the *Työeläkelakipalvelu* digital service

Authenticated or signed in-user can create an account and browse both open and protected content and save search while logged in the service. Both authenticated and unauthenticated user can browse public content, open content to read and give feedback.

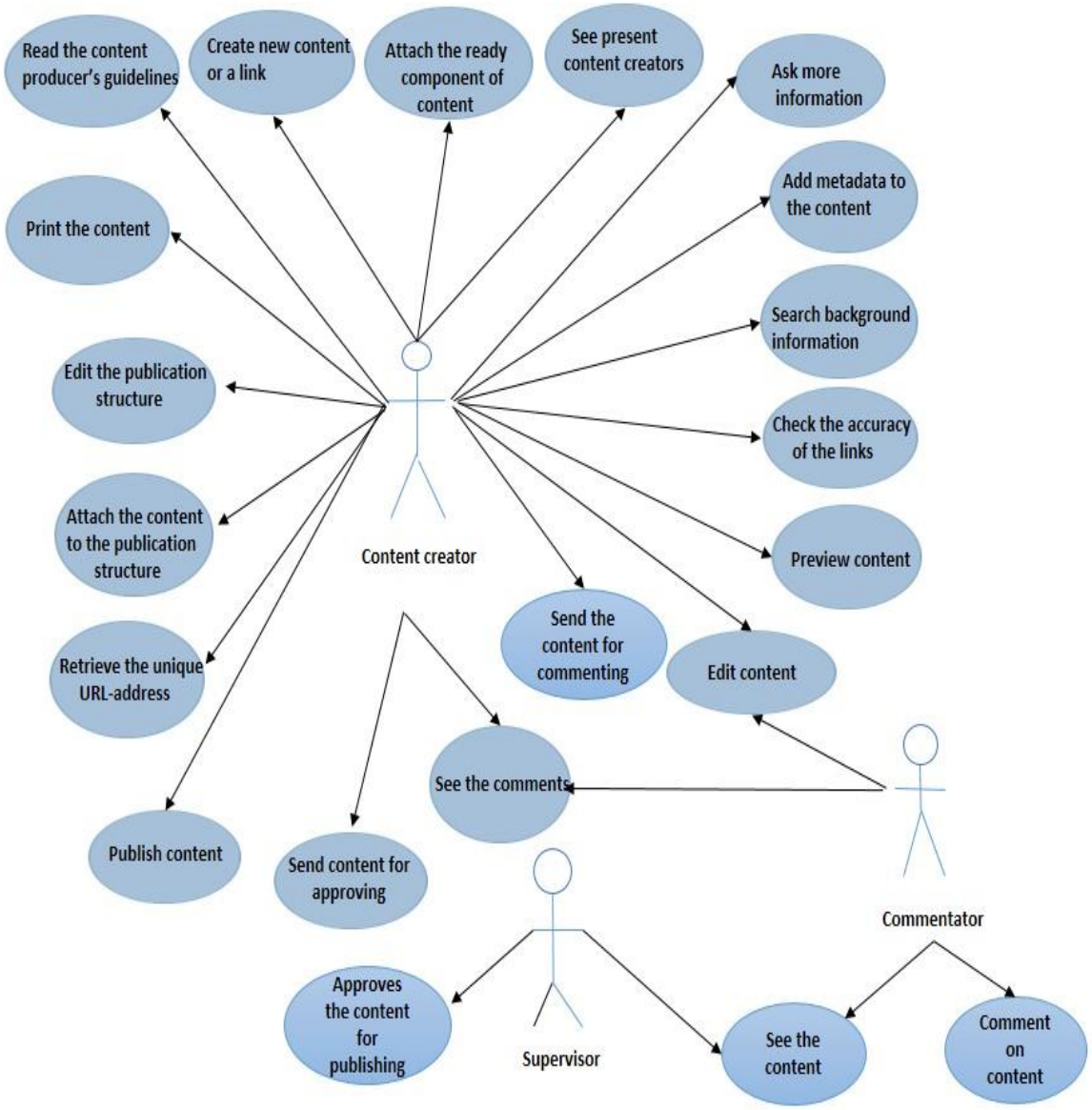

Figure 22: Use cases of content creators of *Työeläkelakipalvelu* service

Työeläkelakipalvelu service concept needs to be based on a strong metadata model that provides a common terminology throughout the service that will enable efficient searches and dynamic navigation through the service - the semantic content processing. The idea of the semantic content processing is to connect the information of content to the content and the relationships between the parts. The semantic processing allows the mechanical interpretation of the scope and thus the ability to implement more intelligent and user-centered web content.

7 Discussion

The focus of interest in this thesis is the digital service concept for organizational customers- *Työeläkelakipalvelu*. The thesis looked into how the digital service concept can be designed that it benefits service provider and facilitates value creation for the customers. *Työeläkelakipalvelu* is a service concept conceived as a future "one-stop" in the area of earning-related pension insurance that would allow private organization and public authorities to apply national rules correctly and remove obstacles that hinder their daily business operations. The service would provide and upgrade access to the legal information. The digital service also provides guidance, examples of and links related to the Employees' Pension Act.

The Finnish Centre for Pensions was used as a case organization that utilizes information as a strategic resource to provide a professional business service in the digital domain as a part of value creation process for the customers, and indirectly for the organization itself by enhancing the knowledge base. The thesis took a viewpoint in designing the service concept of both value creation for the customers and the knowledge enhancement, which occurs during the interaction between the service and the users. Consequently, inputs to the service, in form of questions, requests, and feedback, coming from the customers via service and the internal processes could not be analyzed independently. The service concept takes the best out of the organization's offering and place it in the environment where professionals regularly interact with it, learn from it and build on it. *Työeläkelakipalvelu* would serve as both internal and external knowledge retention tool.

Työeläkelakipalvelu is a service concept that enables a mode of collaboration, supported by information management systems, which reduce costs without decreasing user experience. The Finnish Centre for Pensions employs a highly educated people that are reliant on their expertise to collect, develop and deliver knowledge to create value for their customer's organizations. The key strategic resource is knowledge-based and therefore enhanced during daily business activities. Service delivery involved high degree of communication with the customers, and hence professionals learn from the clients they work for and problems they engage in. Therefore, the choice of professionals, expertise and the domain, where knowledge related to earnings-related pensions can be shared store and communicated through IT system, constitute a combination that supports value creation for customers cost-effectively and beneficially. It is an envisioned service for professional services that retains knowledge and applies insights that could potentially improve the effectiveness of the organization.

Professionals in the Finnish Centre for Pensions offer solutions to knowledgeable professionals. The knowledge related to the earnings related pension is usually separate from other

competencies of the customer organization and acquisition of such knowledge require additional resources. The usage of professional service facilitates organizations to manage with continually increasing need of obtaining field-specific expertise.

Professional business service concept is tailored to the specific needs of the professionals in the customer organizations. Such service would provide the personnel of the customer organization with such knowledge that it does not already own but what it needs and receives as a consequence of the interaction with the service. In this manner, it facilitates the customer organization to achieve its goals and operations in a cost-effective way. It can solve the customers' problems advantageously without unnecessary source losses because the *Työeläkelakipalvelu* service concept is based on its core competencies. Core competencies, in this case knowledge about the earnings-related pension implementation, does not reduce as it is utilized and shared; in fact it may even enhance when put into practice.

Työeläkelakipalvelu as a concept to share information through a digital channel may evolve continually due to its properties that enable knowledge-sharing activities on a daily basis. The service concept uses service design as a tool to capture, retain and build on insights from the outside of the organization by building those principles into the design of the service. The value of the concept stems from the particular user-centered features suggested that reduce the customers' workflow activity time, resulting in productivity and faster decision-making, which potentially leads to reduced expenditure in customer organizations. The concept put forward a clustering of structured content that is updated regularly. Users search and gather information through a digital interface that leads to a collection of results. By the same token, it is notable to consider how the knowledge that is put into service potentially leads to creating a learning organization.

8 Conclusion

A major challenge for the organisations is how to arrange “silos” to work together to deliver a cohesive customer experience. Personnel working in “silos” tend to concentrate on the efficiency of their phase in the value creation process rather that the quality of the complete customer experience. The underlying view is that service design is a way to bridge the gap across the silos and develop services in a more user-centred way.

Describing the service concept in detail gives to an organisation an overview of both difficulties and opportunities in one place, which helps them make strategic decisions about how to deal with them and how the different parts of the business relate to each other’s. It is by developing an innovative and efficient organisation that creates value to customers and other stakeholders.

Service design methods facilitated creating a complete picture of what activities provide value to the customer, as well as processes to unify the experiences by looking at both delivery side and customers’ side of the service. All experiences of a service are a result of particular interactions. There are various touchpoints such as objects, user interfaces and interpersonal interactions. A critical aspect of designing services is understanding context. We need to gain insights that allows us to know who the users are and what they need. Gathering insights into the experiences, motivations and needs of people who use and provide the service was the basis of the work for this thesis. Service design involves research across all the stakeholders of the project-from the manager, frontline personnel to the end users.

The user experience methods of rough prototyping and use cases are used in this thesis as a part of service design process. User experience design focuses mainly on the individual digital touchpoints. However, as both disciplines have a user-centred approach to designing a service, they were complementary. Methods and processes blend but service design methods can be applied more broadly than to digital channels, and are suitable for gaining insights and capturing customer experience throughout the context. Digital services have a focus on user experience as an essential element of the way they function. User experience in this context is mainly concerned with tasks and interactions with digital touchpoints.

Furthermore, the interest of the thesis was to explore as to what features of the service can be standardized and what is customizable by automating the service processes. The envisioned outcome would be user-centered, free of charge service designed to help find fast and pragmatic solutions in the field of earnings-related pension insurance. This would allow business customers, such as lawyers, legal representatives and other private and public organizational customers secure access to legal databases, and find concrete solutions that comply

with national and EU regulations related to pension insurance. It would be a channel for managing the day-to-day business, independent of time and place or the stage of the customer organization's lifecycle.

Throughout the design of *Työeläkelakipalvelu* service concept the challenge was to close the gap between what users expect and what they actually experience. This has informed the service design process that was based on the needs uncovered during the research. The ideal is a service concept that creates value for both service and service user. To face the challenge, a design approach was taken that crossed "silos" and attempted to foster a more mutual relationship with the customers, where the customers and service provider are co-creators of value. Essentially, the service concept aims to be a platform for creating exchanges and contact between staff and users as well as other service users in the field of earnings-related pensions.

It has proven during the research for this thesis that it is challenging to gain insights for a digital touchpoint without it having effect on other touchpoints and overall service proposition of an organisation. Further research may look into the difference between service design and user experience design, which is that the number of stakeholders and the number of touchpoints is often bigger and they usually blend. User experience design is usually focused on a particular touchpoint that is usually digital. Service design methods are more suitable to cross departments and touchpoints.

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Appendix 1: Expert interview with two professionals from the Legal department, held on 8.1.2013

What is the role of the services you provide in customers' own activities?

What are the customer's perceived alternatives to your services?

What is the customer's perceived value and how value is created?

What customer needs and issues do your services solve?

How do you anticipate customers' needs?

Do you provide solutions to customer's challenges proactively?

What importance does customer centricity have in developing of the services you provide?

Appendix 2: Expert interview with development manager of the Legal department, held on 25.6.2013

What is the structure of your customer base?

What kind of customer is valuable to you?

For which customers do you primarily develop your service?

For what situations and business operations challenges do your services provide the solution?

Do you receive enough information about customers' activities and challenges?

How is the customer’s voice heard in the service development process?

Is the development of the service done together with the customer?

How do you establish the benefits of the services you provide for both the customer and your own organization?

How do you establish the economic and operational advantages of the service for your customers (such as financial savings or greater efficiency in the process)?

How have you ensured that the *Työeläkelakipalvelu* service generates good customer experience?

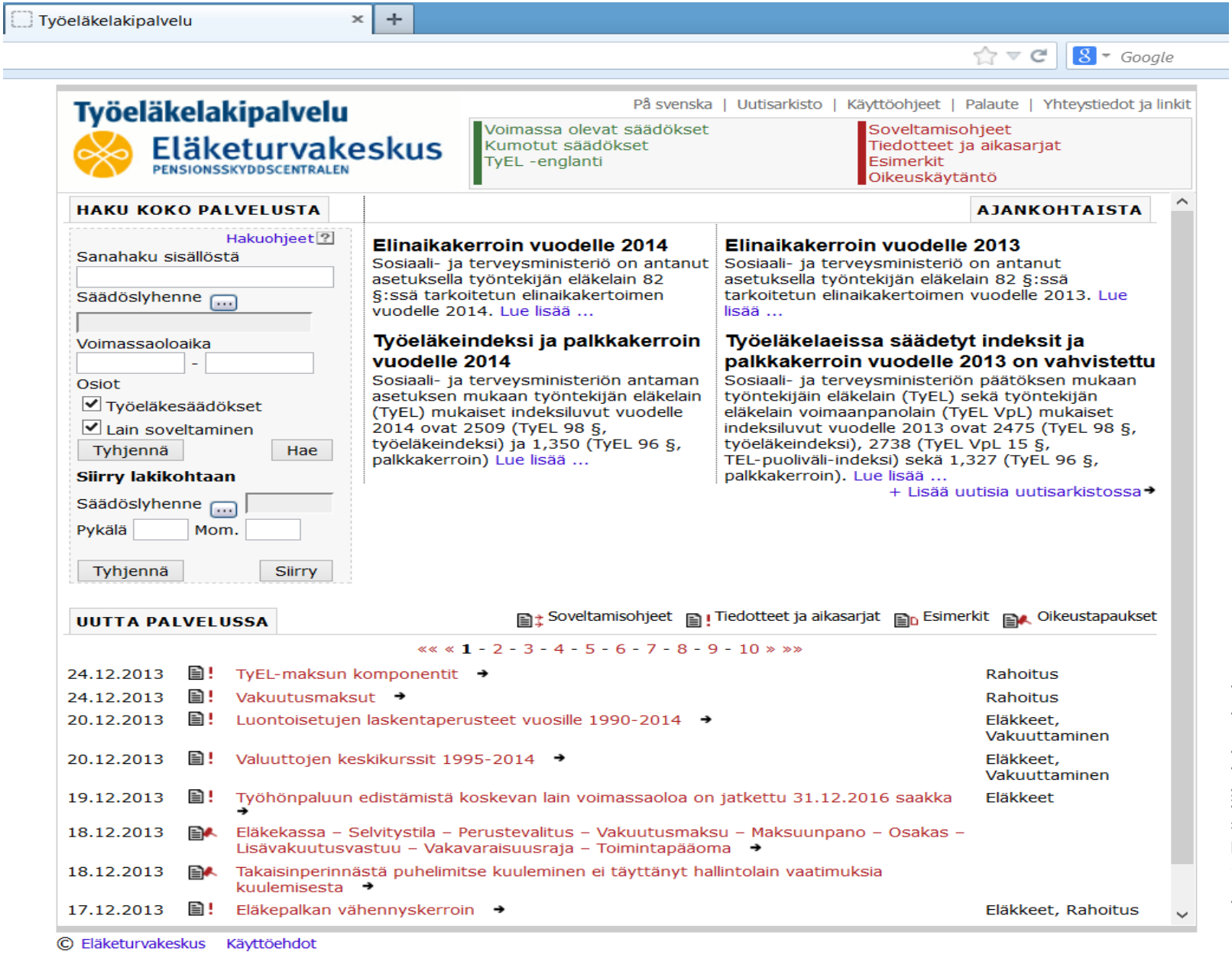
Appendix 3: Focus group discussion held on 13.2.2013

YOUR RELATIONSHIP WITH THE FINNISH CENTRE FOR PENSIONS
In which context have you most recently been involved with the Finnish Centre for Pensions?

YOUR ORGANISATION'S CO-OPERATION WITH FINNISH CENTRE FOR PENSION AND ITS BENEFITS
Why does your organization do business with the Finnish Centre for Pensions?
What are the benefits you have received from doing business with the Finnish Centre for Pensions?
What about your organization?

OPERATION AND SERVICES OF *TYÖELÄKELAKIPALVELU* SERVICE AT PRESENT
How well do you know *Työeläkelakipalvelu* service?
How would you describe *Työeläkelakipalvelu* service as it is at present?
What service does *Työeläkelakipalvelu* provide?

WISHES CONCERNING THE DEVELOPMENT *TYÖELÄKELAKIPALVELU* SERVICE
What information have you've sought from the service recently?
What services would you like to get from the *Työeläkelakipalvelu*?
In what ways would you like yourself to participate in the development of the service?



Appendix 4: Työeläkelakipalvelu service at present

Appendix 5: Wireframe of the *Työeläkelakipalvelu* service concept