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THE IMPROVEMENT OF A SELF-SERVICE PROCESS OF
EMPLOYMENT MEDIATION IN ESTONIAN
UNEMPLOYMENT INSURANCE FUND

Master's thesis

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EESTI TÖÖTUKASSA TÖÖVAHENDUSE
ISETEENINDUSPROTSESSI PARENDAMINE

Magistritöö

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Master of Science
Lecturer

Tallinn 2016

Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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Abstract

The purpose of the research is to analyse whether and what could be improved in Estonian Unemployment Insurance Fund's self-service process of employment mediation so that it would satisfy both the clients' and the organization's needs. The outcome of the research gives an understanding if Estonian Unemployment Insurance Fund's current online service delivery supports the organization's vision to offer the best employment services and ensure the availability and quality of services. Other European countries' practices are compared to Estonian online service delivery solutions and researched are also clients' and employees' opinions to provide recommendations how to improve the existing solutions. Qualitative research is carried out with surveys among Estonian Unemployment Insurance Fund's clients and employees. Case study research in form of documentation analysis is carried out to explore in greater depth how the Netherlands has developed their self-service employment mediation solution and what could Estonia learn from it. As the research paper aimed to find ways for improving Estonian Unemployment Insurance Fund's online service delivery, it is a valuable input for organization's further development plans and possible future visions.

This thesis is written in English and is 100 pages long, including 3 appendices, 7 chapters and 21 figures.

Annotatsioon

Uurimustöö eesmärk on analüüsida, kas üldse ning mida oleks võimalik parendada Eesti Töötukassa töövahenduse iseteenindusprotsessi juures, et rahuldada nii klientide kui organisatsiooni vajadused. Uuringu tulemus pakub arusaama, kas Eesti Töötukassa praegune iseteenindusportaal ja e-teenuste pakkumine toetab organisatsiooni visiooni pakkuda parimaid teenuseid ja kindlustada nende kättesaadavus ning kvaliteet. Antud uuring võrdleb teiste Euroopa riikide arenenud praktikaid Eesti lahendustega ning uuritud on ka Eesti Töötukassa klientide ja töötajate arvamusi, et anda soovitusi, kuidas parendada olemasolevat lahendust. Organisatsiooni töötajate ja klientide arvamused leitakse läbi küsimustike ning kvalitatiivse analüüsi. Juhtumianalüüsis analüüsitakse põhjalikult, kuidas Hollandis on arendatud iseteenindusportali töövahenduse protsess ning mida Eesti sellest õppida võiks. Kuna uurimus püüab leida viise kuidas parendada Eesti Töötukassa e-teenuste pakkumist, on antud lõputöö oluline sisend organisatsiooni edasistele arenguplaanidele ning võimalikele tulevikuvisionidele.

Lõputöö on kirjutatud inglise keeles ning sisaldab teksti 100 leheküljel, 3 lisa, 7 peatükki, ja 21 joonist.

List of abbreviations and terms

EUIF	Estonian Unemployment Insurance Fund
PES	Public Employment Services
ALMPs	Active labor market policies are government programs that are being implemented to increase employment opportunities for job seekers and improve balance between jobs available and qualified employees.
ICT	information and communications' technology
Self-service	the serving of oneself with goods or services
Web self-service	a type of electronic support (e-support) that allows customers and employees to access information and perform tasks over the Internet

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Introduction

Digital technologies and online services have become more important than ever – they are part of our everyday. More than 40 percent of the world’s population has access to the Internet, with new users coming online every day (World Bank 2016, 13). The tendency refers to the fact that there is a growing need for digital services and also in public sphere. There is an increasing expectation for easier access to more public information and public services from anywhere, anytime through multiple channels or citizen touch-points (UNPAN 2014, 8). Therefore, public organisations must continue to develop and improve their online services to use the full potential of them to offer excellent customised services to citizens.

In recent years Estonia has emerged as one of the leaders in the area of digital public service delivery. Among other e-services, Estonia offers also public employment services online. The organization responsible for this is Estonian Unemployment Insurance Fund (EUIF). As Estonia already has a lot of services online, organisations’ development plan (2016-2019) brings out that part of the organization’s vision is to encourage other European labour organizations with the performance of EUIF services, innovative approaches, and user-friendly IT solutions. (Eesti Töötukassa arengukava aastateks 2016-2019, 5). The recent cooperation between European public employment services (PES) has shown that some other countries have practiced even more advanced online solutions for offering the same public employment services that are offered in Estonia. Currently there is no research about whether it would be wise to implement these solutions in Estonia and how other PES advanced e-service practices fit in Estonian context. For understanding that a research among employees and clients must be carried out.

The ultimate goal of current thesis is to analyse whether and what could be improved in Estonian self-service process of employment mediation and service delivery so that it would satisfy both the clients and the organization’s needs. Examined are the developments of Estonian labour market services in the context of digital service delivery and compared are EUIF’s online services with other countries’ good practices to find out what is different and which advanced practices may be missing in Estonia. Also, what is the attitude of EUIF’s clients and employees towards current solutions in EUIF’s self-service portal and which advanced solutions would they

like to see in self-service portal in the future. The aim of the research is therefore to understand if current online service delivery supports the organization's vision to offer the best employment services and ensure the availability and quality of services (Eesti Töötukassa arengukava aastateks 2016-2019, 5). As the research paper aims to find ways for improving EUIF's online service delivery, it is a valuable input for organization's further development plans and possible future visions.

The main research question of the study is how to improve the existing self-service process of employment mediation for EUIF. To answer that, three sub-questions are asked. First sub-question aims to find out which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia. Second sub-question asks how to improve the existing self-service process of employment mediation from clients' perspective. Third sub-question asks how to improve the existing self-service process of employment mediation from employees' perspective.

Current thesis has seven chapters which are divided into smaller sections. First chapter gives an overview about the history and formation of Estonian PES online services. Estonian current situation in case of online employment services and the central problem with the topic is brought out. Second chapter provides a theoretical background based on service orientation approaches – individual service orientation and organizational service orientation and its sub-approaches. Third chapter offers a literature review where different European PES practices are examined in the context of multi-channelling and blended service delivery. Concerns about the topic are outlined. Fourth chapter focuses on chosen methodology, which is action design research and case study research. The fifth chapter offers analysis of the Netherlands' case study and results of the clients and employees' surveys. Sixth chapter of the work focuses on discussion on the basis of conducted research. Last chapter summarizes the main findings and offers recommendations for future research.

1. Estonian case

Estonian Unemployment Insurance Fund is a public legal entity that is created by "Unemployment Insurance Act". (Vabariigi valitsus, Eesti Töötukassa põhikiri) In 2002 while the establishment of EUIF took place, the intention and direction was to implement diverse IT solutions, competent IT systems were built that undergo regular security audits and are customer-friendly (Töötukassa, 2010a). In 2009 Estonian Parliament adopted a law, which incorporates Labour Market Board and EUIF. Since then active and passive labour market policies are provided only by EUIF (Postimees 2009) and new information system, which had data exchange interfaces with other national databases, was set up in 2009 within six months (Töötukassa, 2010a). However, the process of developing the system is continuous to date and with the aim of maintaining a modern system.

Visse (Töötukassa 2010a) has said that that time there were statutory obstacles to create even more advanced IT solutions. The example is the obligation to turn into EUIF branch to at least once to receive help with employment mediation which set limits to the development of self-service. Despite that new possibilities were planned. In the end of 2010 EUIF's information system started to match and send out job offers to clients by e-mail (Tallinn.ee 2009). Until then job seekers had to open an excel file to view job offers (Palk.ee 2010). Call centre for supporting clients was opened in 2009 and since 2010 it is also possible to contact EUIF via Skype (Töötukassa 2010b) Possibility to get EURES counselling via Skype (people who were interested in working abroad) was launched in the end of 2011 (Töötukassa 2011a). People with job search problem can contact career information specialist via Skype since 2012 (Töötukassa 2012). Pieterston (European Commission 2014g, 2), has said that the use of Skype by the Estonian PES is a clear example of technology-mediated customer contact.

Although there were one e-service in EUIF's self-service portal already in 2009 – employers were possible to apply for redundancy payment online (with ID-card) (Töötukassa 2009b) – an advanced self-service portal with broader opportunities was launched in 2011 (Postimees 2011). Starting from January 2011 was possible for jobseekers to search job offers, create a CV, apply for job vacancies, look applications and decisions and inform EUIF about found work. Employers were possible add and manage job offers, search suitable candidates, manage information about candidates and as said before, apply for redundancy payment. (Töötukassa 2011b) EUIF self-service was designed to be user-friendly and was developed by involving job

seekers and employers to the design process (Saarte Hääl 2011) which is very good way to develop customer-orientated e-services. New self-service portal was quite popular and visited by nearly 70 000 people in first month (Töötukassa 2011c).

Multi-channelling, increasing the use of online services and ICT solutions in Estonian PES administration in general were (according to EUIF's Development Plan 2010-2012) key activities for improving the quality of client service and making all services more accessible and user-friendly for both job-seekers and employers (European Commission 2014e, 3). EUIF believed that clients should not be asked to present any data on paper that can be retrieved automatically from other registers. The overall strategy was that all services that do not require personal contact with the PES staff should be offered online. E-services and alternative channels were additional ways of communication and client service, EUIF's aim was not to substitute face-to-face service with e-services. (European Commission 2014e, 3)

As said earlier, in Estonia, the law also set limits to the use of self-service. For example, job-seekers are required by law to register as unemployed in person in the employment office and regular work-focussed interviews with PES staff are required to take place at least once a month (Riigikogu 2006). Starting from May 2011, the legal requirements were changed to allow EUIF to agree possibility to report on job-search also via the self-service portal or telephone. This can be agreed with the new clients (for the period of three months) or with clients participating in ALMPs or other measures (i.e social services) aimed at helping them into employment (European Commission 2014e, 6). Starting from 2015, the possibility is also extended to the clients in difficult medical condition, with disabilities or special needs (Riigikogu 2006). Therefore, Estonian self-service is voluntary and online services are rather supplementary (there is no obligation to use them and the need for using self-service for reporting about job-search is assessed by EUIF). However, Estonia still encourages the use of self-service portal and assists clients if needed (European Commission 2014e, 6). These clients who are allowed to contact their employment adviser via self-service portal are required to keep an e-diary (job-search diary), where they need to answer the set of questions and send it regularly by an agreed deadline to the adviser via self-service portal. The employment advisors monitor these diaries, give feedbacks and allocate new assignments for clients then. (European Commission 2014e, 6)

There were also other innovations. New self-help innovation was automatic matching tool in self-service portal which is used for matching the job offers with CVs and job wishes, and vice versa. The employers can find suitable candidates and invite them to apply for a job and

jobseekers can easily find suitable vacancies either via the self-service portal or ask for automatic notifications by email (European Commission 2014e, 7). Registered jobseekers can compile their CV by using the data inserted in the PES information system (European Commission 2014e, 15). That kind of approach saves time and helps to offer additional opportunities to clients to simplify their job search. About social media innovations, Estonia has used Facebook, YouTube, blogspot.com, vimeo.com, www.ustream.tv and was targeted at and mainly used by younger clients (European Commission 2014e, 10). EUIF uses social media to inform people about events and services and to publish advice and tips on job-hunting. The use of social media is not integrated into the EUIF daily work processes (European Commission 2014e, 10).

Even though the development of self-service was still ongoing was launched a mobile version of EUIF homepage in 2013 (Töötukassa 2013) which shows the organisation's desire to be innovative. Continuous development brought innovative possibilities to self-service portal also in 2014. Since the last peer review event on multi-channelling, the EUIF's self-service portal has been developed further in order to simplify processes and to provide a wider range of e-services for clients. The portal was also integrated into the EUIF's new homepage. (European Commission 2014e, 2) Now it is possible for clients to submit different applications online, for example for registering as unemployed or as job-seeker, for getting unemployment insurance benefits or unemployment allowance and for getting business start-up subsidy. The employers have possibility to apply for wage subsidy through self-service (Töötukassa 2014). For jobseekers who agreed to use their personal information for job mediation, but had not composed or uploaded their CV, EUIF started automatically generating CVs (European Commission 2014e, 2) to increase the chances of finding employment for those clients.

EUIF's overall strategy is to make all the services that do not require personal contact available online, because the statistics show that every year more and more EUIF's clients choose digital channels when possible (European Commission 2014e, 2). In conclusion, jobseekers have quite many possibilities online and can do the following via the self-service portal (European Commission 2014e, 5):

- look/apply for a job, receive automated job matches on one's e-mail;
- fill in their job-search diary (if allowed), draw up a CV by automatically importing personal data from the EUIF information system;

- submit registration application and unemployment benefits applications;
- follow-up applications and decisions regarding registration, benefits and services;
- follow the activities in the individual action plan agreed with the employment adviser.
To receive reminders on the deadlines of activities;
- get e-mail alerts reminding to contact the employment adviser or to fill out and send the e-diary;
- search and register for a training course;
- apply for a business start-up subsidy and follow-up mentoring;
- notify the employment adviser of getting a job.

At the same time employers can do the following via the self-service portal:

- notify of their vacancies, search for suitable candidates, change and update job ads they have published;
- receive a list of suitable candidates for a job;
- give feedback on jobseekers after the interviews take place (both to the jobseekers themselves and to the EUIF staff);
- apply for a bankruptcy benefit or a redundancy benefit for their employees;
- submit a wage subsidy application.

Since 2014 the EUIF had continuously improved the available options in self-service portal and made smaller and larger improvements. In 2015 main applications (registering unemployed and benefits applications) were also translated to Russian language.

EUIF also carries out customer satisfaction surveys in cooperation with research agencies every year. The aim is to identify how satisfied our clients are with our services, homepage, the self-service portal and the call centre (European Commission 2014e, 9). EUIF has said that the feedback got from the clients (as well as from staff) on e-services is the basis for building new IS solutions or making improvements in the current ones (European Commission 2014e, 10). In October 2015, 52% of clients found that they are satisfied with EUIF's self-service portal's

convenience of use and usefulness. 21% of clients were partially satisfied, 4% were not satisfied at all and 23% had not used self-service portal. The other question was asked about homepage. 62% of clients were satisfied with clarity and visibility of the information on EUIF's homepage. 25% were partially satisfied, 3% were not satisfied at all and 9% had not used EUIF's homepage. (Töötukassa 2015, 11) However, the survey's main focus is not primarily on online service delivery.

1.1 Main concerns with online service delivery in Estonian PES

EUIF has seen that the main advantages in introducing multi-channel approaches are reduced paper trail for both clients and staff, reduced time spent on processes (more time available for counselling) and improved quality and cost-effectiveness through automated processing of claims (European Commission 2014e, 13). Despite that there have been many problems and challenges also while introducing online possibilities. EUIF has said that the main challenges are: training the staff to be able to assist clients in different channels, ensuring clients' equal opportunities to access e-services, effective monitoring of active job-search if face-to-face contacts are reduced and design of user-friendly e-solutions (European Commission 2014e, 14). These seem to be the reasons why EUIF has work-focused face-to-face interviews with all the clients in addition to e-services. Currently, the law also obliges clients to turn in person into EUIF's branches once in 30 days (Riigikogu 2006). There are exceptions, but the initial consultation must take place only in EUIF's branch and in person. According to EUIF's view that is also one of the key challenges because legal regulations may be more difficult to change than building the relevant software solution (European Commission 2014e, 4).

As seen from above, EUIF measures client satisfaction with services and monitors statistics, but has not analysed the outcomes of using digital channels vs face-to-face counselling (European Commission 2014e, 9). Because two channels are currently not equal in the means of offering services (all actions can not be done via digital channels), the outcomes are also hard to evaluate. Therefore, there is a need for investigation related to blended service delivery and channel choices to assess the possible development opportunities. That is necessary to understand whether current situation and service delivery where most of the clients have face-to-face consultations in EUIF's branch could be done differently to achieve savings in time and cost while at the same time offering customer-oriented services. There is an understandable need to have face-to-face counselling with some of the clients, but current study aims to find out whether a larger proportion of clients could be successfully served via self-service, as many other

countries have demonstrated positive examples in this field. The hypothesis of the current thesis is that EUIF could better serve their clients by smart blended service delivery where all the advantages of digital channels are used.

There is currently no analysis/conclusion about which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia (yet are not implemented). There is also no study about how to improve the existing self-service process of employment mediation from clients' and employees' perspective which is crucial for developing even more customised innovative services. That is also the objective of current thesis – to study EUIF's customer's satisfaction and expectations and employees' attitudes and expectations to evaluate the current state of service delivery and to gather important information for designing online services in the future. The outcome of the research will help to provide an understanding whether EUIF and Estonian clients are ready to use more digitalized services. Solving this question helps to find out is there a room for development in case of online service delivery in EUIF or the current situation the best possible.

2. Theoretical background

The theoretical base of the work is framed with service orientation approach. The segment gives an overview about individual service orientation and organizational service orientation. Highlighted is how service orientation is linked with e-government. Chapter explains how the research problem is seen through several theoretical sub-approaches (service practices/procedures) such as service design, service systems, service encounters, service leadership and human-resource management (change management).

2.1 Service orientation

Oliveira and Roth (2012) define service orientation as the business' overall propensity for delivering service excellence. Caemmerer and Wilson (2011, 356) have studied service orientation literature and found that it emerged and developed into two main streams – one focusing on employees' perceptions of organisational service orientation, the other on the individual service orientation of the employee. Schneider & Bowen (1985, 262) found that internal services management practices and procedures are important for a positive service delivery to customers as they have an impact on how employees perceive the service orientation of the organisation. At the same time, there is the notion that the service encounter is dependent on the attitudes and behaviour of customer-facing staff and this concept has been defined as individual service orientation (Hogan et al. 1984 via Caemmerer and Wilson 2011, 356).

Service orientation focuses generally on the desire to offer excellent service and is therefore suitable for explaining why the research problem under study exists. All organizations, including PES are aware of the importance of good service provision and are looking for ways to better serve their clients. Internal services management practices and procedures in PES organization are crucial for an excellent service delivery to customers as they have an impact on how employees perceive the service orientation of the organisation. While acknowledging that, also individual service orientation cannot be forgotten, because service encounter is dependent on the attitudes and behaviour of customer-facing staff in PES.

2.1.1 Individual service orientation

Individual service orientation is the ability and desire to anticipate, recognize and meet others' needs. Service oriented people focus on providing satisfaction and making themselves available to others. (trubyachievements.com) It is a set of basic individual predispositions and an

inclination to provide service, to be courteous and helpful in dealing with customers and associates (Hogan et al. 1984 via Cran 1994, 36). High individual service orientation has many advantages. Employees with an inherent tendency to be pleasant, polite, cooperative and helpful in dealing with others will be more receptive to service training, will perform their work roles more reliably and with lower levels of required supervision (Cran 1994, 38). Therefore, individual service orientation is essential for receiving organizational success.

If the staff of the PES is strongly individually service-oriented and helpful, encouraging and supporting, the everyday actions and performances with clients are better. Staff with such characteristics is therefore organisationally more effective. While talking about accepting innovations and online service delivery, individual service orientation is again one of the core aspects. When PES staff has a strong motivation to help clients, staff's attitudes and behaviour is in favour to offer services that are innovative and desired by the clients, then clients are more receptive to these innovations. Clients' acceptance with the changes starts largely with the attitudes of the staff. If the impression of the service encounter is positive and clients feel the support, they are probably more motivated to try new online solutions.

The further research should try to find out, how individually service-oriented is EUIF's staff about online service delivery and would they recommend it to EUIF's clients in the future. There is a need to find out do they have motivation and willingness to implement service delivery that is blended and offered by multiple channels, or they do not believe in it and therefore would not cooperate to ensure an easy transition to online service delivery.

2.1.2 Organizational service orientation

Organizations are always looking for better ways to improve the organization, their service delivery and customer satisfaction. Even if individual service orientation is crucial for changing service delivery methods, the perceptions and visions of the staff can be affected already at the organizational level and before the service encounter. Lytle et al. (1998, 459) have defined organizational service orientation as an organization-wide embracement of a basic set of relatively enduring organizational policies, practices and procedures intended to support and reward service-giving behaviours that create and deliver "service excellence". "Service-oriented organizations engage in service-giving practices (attending to customer needs, sharing, helping, assisting, giving) that reflect the belief that service excellence is a strategic priority and that service significantly impacts the creation of superior value, customer satisfaction, competitive advantage, growth, and profitability" (Lytle et al. 1998, 459).

Organizational service orientation also describes staff's attitudes and behaviours which directly affects the quality of service delivery process and determines the state of all interactions between an organization and its customers (Urban 2009, 73). According to Lytle et al. (1998) organizational service orientation can be divided into four main attributes: service leadership practices (servant leadership, service vision), service encounter practices (customer treatment, employee empowerment), service system practices (service failure prevention and recovery, service technology, service standards communication) and human resource management practices (service training, service rewards). Every attribute is important for achieving the best service delivery. As all other organizations, PES intention is to offer good service and gain clients' satisfaction. If clients are pleased with the service, they are more willing to cooperate to meet the objective of their visit– to receive help and support with job search. To meet that objective, PES should engage in service-giving practices and create a service-oriented environment.

2.2 Service orientation approach in public sector

Åkesson, Skalen and Edvardsson (2008, lk 75) have studied service orientation in public administration and e-government's propensity to encourage it. They define service orientation as a set of organisational policies, practices, and procedures intended to foster the creation and delivery of service excellence. Authors identified, that in case of service orientation in the field of e-government, five areas are worthy of note: service design, service systems, service encounters, human-resource management and service leadership. The areas are defined in more detail below.

2.2.1 Service design and service concept

The term “service design” describes the planning and integration required to ensure that the intended service is delivered to the targeted customers (Åkesson, Skalen and Edvardsson 2008, 75). To ensure that the service package and service encounter fits the needs of the customer and the service organization itself, organizations must therefore focus on the design and delivery of their service concept (Goldstein et. al. 2002, 122). Edvardsson and Olsson (1996, 149) define service concept as the detailed description of what is to be done for the customer (what needs and wishes are to be satisfied) and how this is to be achieved (the service offer). All this is done to achieve the best quality of the service and to succeed as an organization by meeting customers' needs. While achieving this, Gummesson (1991, 10) finds that service design

should also include a certain amount of discretion and it must empower employees to use their best judgement in interactions with customers.

Good service design in PES can be achieved also with proper planning and integration required to ensure that the intended service is delivered to the targeted customers. To design their services, PES should find out, what are the needs of the clients and how it is possible to achieve their satisfaction so that at the same time, organization as a whole also gains from that. This involves understanding the needs of customers and aligning this with the organization's strategy and competitive intentions. Also, giving PES staff certain amount of discretion. To have a better understanding about EUIF's clients wishes and opinions about online service delivery and how to design online services, a research among them should be carried out.

2.2.2 Service systems

The term "service system" refers to the mix of practices and procedures required for the delivery of the service to the customer. Service system includes provision for service standards, communication practices, utilisation of service technology, prevention of service failure, and the delivery of service recovery. (Åkesson, Skalen and Edvardsson 2008, 76) That means, service failure prevention and fast recovery are essential to achieve satisfied customers. Service technology should insure that customers' expectations are met. Service standards communication must be also good to prevent misunderstandings and bad service delivery. Service system must take account all the resources – staff, customers, physical and technical environment and the organisational structure (Edvardsson and Olsson 1996, 151). Service delivery with good quality depends therefore a lot on the service system. As service system is a mix of practices and procedures required for the delivery of the service to the customer, organizations should invest to the design of it. If the quality of the system is poor, the organisation has no chance to offer good services.

In case of online services, service system has even more important role. All systems, but especially online service delivery systems should consist of service failure prevention and recovery measures. While receiving an online service, staff is not always reachable and systems should work without errors – technology should support as much as it is possible to gain customer satisfaction. Service failures can be also reduced by engaging the staff into testing process to offer properly tested and high quality services. The speed and cost of receiving a service can also be enhanced by offering online services, which helps to again receive clients' satisfaction.

2.2.3 Service encounters

Lytle et al. (1998, 460) define service encounters as employee interactions with customers. The service encounter is a major opportunity for an organisation to make an impression in the minds of its customers as they evaluate service quality (Åkesson, Skalen and Edvardsson 2008, 76). Therefore, customer treatment and employee empowerment are important components to insure satisfied customers. When in the past, service encounters have mostly involved personal interactions between frontline employees and customers, then now the interactions have been increasingly mediated by technology (Åkesson, Skalen and Edvardsson 2008, 76). However, the importance of the good impression stays.

While concentrating on PES service encounter, it is clear that it is a major opportunity for an organisation to make an impression in the minds of its customers as they evaluate service quality. As more recently interactions with PES clients have been also mediated by technology, it is important to find out, how customers feel themselves while they are served by technology and do not have face-to-face interactions. Do they perceive the service quality differently or are they satisfied and there is no difference which channel they use for receiving services?

2.2.4 Human-resource management and change management

Human Resource Management is the function within an organization focuses on the recruitment of, management of, and providing direction for the people who work in an organization (humanresources.about.com). Service orientation model should include measures of service training and service rewards practices (Lytle et al. 1998, 463) which are related to human resource management. “The creation of an effective service orientation in any organisation involves a focus on service-oriented human resource management throughout that organisation. In particular, the training of frontline personnel who come into direct contact with customers is crucial to the achievement of customer satisfaction.” (Åkesson, Skalen and Edvardsson 2008, 77) It is thus considered to be of vital importance to manage the personnel in this way achieving organizational change (Åkesson, Skalen and Edvardsson 2008, 77).

To achieve satisfying service encounter, the training of frontline personnel who come into direct contact with customers is important. In case of online service delivery, it is even more vital to manage the personnel in this way to achieve organizational change. If the human resource management is service-oriented, it is easier to provide innovations to clients. Training is especially important in case of new technological opportunities. If clients feel that staff is

supporting and knows what to do and how to help, then they are more likely to accept the changes.

2.2.5 Service leadership

“Service leadership is reflected in the attitudes and conduct of the management team in envisioning, shaping, and governing the organisation” (Åkesson, Skalen and Edvardsson 2008, 76). Service leadership produces a service mentality or a soul of service in the organisation (Edvardsson and Enquist, 2002, 159) and the likelihood that service personnel will provide excellent service to customers is increased if employees receive excellent service from their own managers (Åkesson, Skalen and Edvardsson 2008, 76).

All the wanted outcomes are more achievable when leadership is strong in the organization. Service leadership produces a service mentality or a soul of service in the organisation. The likelihood that service personnel will provide excellent service to customers is increased if employees receive excellent service from their own managers. In case of PES online service delivery, for enforcing the changes, leaders should have a clear vision which can be easily communicated to staff.

2.3 Service orientation’s attributes’ linkage with e-government

Regarding e-government and new e-services, there is a lot of discussion about the problems they solve and what are the benefits and cost-savings for governments and citizens. Despite the benefits of online services, the success and acceptance of e-government initiatives are contingent upon citizens’ willingness to adopt this innovation and that can be largely shaped with individual and organizational service orientation. According to Åkesson, Skalen and Edvardsson (2008, 77), initiatives associated with e-government have the potential to affect the service orientation of public sector organisations, for example:

- HRM initiatives associated with e-government have the potential to enhance service orientation;
- face-to-face service encounters will certainly be reduced by e-government initiatives;
- service design is likely to be changed by e-government requirements for secure and confidential services;
- strong service leadership is likely to be required to implement effective e-government.

“These examples indicate the wide range of potential effects that e-government might have on service orientation.” (Åkesson, Skalen and Edvardsson 2008, 77) The design of channels must therefore take into account the characteristics not only of the particular service and of the particular channel, but also the broader context of the organisation where the service takes place (European Commission 2011b, 9).

3. Literature review

Literature overview is divided into four segments. First segment gives a brief overview about historical background about public employment services– the appearance of different channels and self-service options. Second segment examines European countries' discussions about multi-channelling in public employment services. Third segment concentrates even more in depth on different channels and examined are EU latest discussions on blended service delivery in employment area. Last segment summarizes the main concerns in case of online service delivery in PES organisations. Literature overview points out various e-solutions, methods and practical approaches that have been used by different countries so far in the field of public employment services. Attention is also paid on the harmonized findings and overall strategies that EU has followed in unemployment area in recent years. Comparisons with EUIF's online services are brought out in chapter 6 which focuses on discussion of the results.

3.1 Historical background of channel formation in public employment services

As said before, one of the many governments' functions is to provide public employment services (PES), which could be also e-services (depending on a country). Public employment services are one of the major conduits for implementing employment and labour market policies (ILO, Employment services) which aim is to help unemployed the best possible way. Labour market policies that PES offer consist of policies that provide income replacement (usually called passive labour market policies) as well as labour market integration measures [active labour market policies] available to unemployed or those threatened by unemployment. (ILO, Labour market policies and institutions) Active labour policies include for example job placement services, benefit administration, and labour market programmes such as training and job creation (OECD, Active Labour Market Policies and activation strategies). On a worldwide scale, most public employment services provide the same key services: job brokerage, active labour market policies and labour market information (OECD, IDB and WAPES 2015a, 64). Various policy measures are prevalent throughout the world, including for example personal job search interviews and direct offers of vacant jobs to job seekers by public employment services staff. Other instruments like customer segmentation or profiling of unemployed job seekers are less widespread around the world. (OECD, IDB and WAPES 2015a, 64)

Although services and policy measures are largely similar across countries, channels through which public employment services are offered, vary. According to OECD, IDB and WAPES (2015a, 111), organizations have to balance three goals in their service delivery choices. First one is effectiveness, which points to the success of delivering services to clients. Second is efficiency, which points to the level of cost-consciousness involved in this process (the most economical way to deliver the service without making too many concessions regarding effectiveness and satisfaction). And third goal is satisfaction, which refers to the (client and government) perception of the service quality. The perfect solution and balance between the goals is hard to find and is different around the world. It must be carefully analysed considering the current economic state of the country, the clients' skills and desires and willingness to adopt new service delivery channels.

The E-government 2014 Survey shows that while counter (face-to-face service) and telephone (voice) services, have continued to serve as fundamental channels, digital channels are being increasingly adopted by almost all countries. (UNPAN 2014, 8). Overall usage of e-government services varies strongly among countries and different citizen groups. In OECD countries, e-government usage averages out at 50 per cent of its citizens, but there is great variation among countries. (UNPAN 2014, 141) The use of e-services is connected to digital divide but there could be also other reasons like habits, need for direct communication, fear of making mistakes, previous bad experience ect. Usage can vary depending on a country and further depending on an individual point of view which means that organisations need to constantly improve and monitor their services to increase the continuous use through different channels that are most effective. The approach that deals with that is called “multi-channel management” and (PES) service delivery can be greatly improved through it. The aim of a multichannel approach is to optimise selected channels for specific service to deliver the best results and to achieve social equity by reaching out to all the population groups, including disadvantaged and vulnerable ones (UNPAN 2014, 9). This management issue focuses therefore on helping organizations make decisions about the deployment of their service channels (OECD, IDB and WAPES 2015, 110) to offer customised services.

Broader discussion about PES service delivery options started already while the use of Internet spread over the world. At that time, government agencies were trying to answer the question of how the Internet should be positioned among the other service channels. (Pieterse 2009, 5). Between 2001 and 2004, the OECD, the European Training Foundation, CEDEFOP and the World Bank carried out a study to explore personalized employment and career guidance

services in the European PES. Sultana and Watts (2006, 5-7) found out that across all countries, the survey responses indicated a major shift towards self-help services. Some countries — such as Finland, for instance — had introduced an ‘e-strategy’ policy in order to facilitate the blending of self-help strategies into their portfolio of services. Some countries failed to flag major developments in the self-service area, but declared that there were plans afoot to do so. Most had made a major investment in developing or adopting ICT and software to create self-help possibilities. Examples of mentioned possibilities include (Sultana and Watts 2006, 62-63):

- the development of self- and career-exploration packages (e.g. Austria, Belgium, Estonia, Ireland, Lithuania);
- web-based job-search facilities (e.g. Ireland, Norway);
- web-based registration, integrating the possibility of entering one’s CV (e.g. Denmark, Ireland, Malta, Norway) or constructing a ‘personal skill register’ (e.g. Luxembourg) online;
- the use of call-centre technology, which ranged from a simple free phone number in order to access information (Belgium, Finland, Greece, Hungary, Ireland, Italy, Norway, Poland, Slovenia), to a more in-depth engagement in a distance counselling interview (e.g. Poland, Sweden).

The key reason for the shift was the increasing number of clients that PES staff have to deal with. Self-service became more feasible due to opportunities that new ICTs provide and that time new solutions were mainly information-based, although as seen from the latter, there were already some countries who offered counselling from distance. The major concern at that time (which can be also seen today) was that self-service without the provision of support and guidance by expert staff may not be a professionally sound solution as clients may not have the literacy for using it. (Sultana and Watts 2006, 66) PES had to decide how to gain from new possibilities in a way that clients who are capable to use self-service would find job using online services and other clients would get more attention. One way of addressing the PES resource issues was through tiering of services. (Sultana and Watts 2006, 112) A common model was to define three levels of service (as in Austria, Finland, Germany, the Netherlands, Portugal and the UK) – self-service, group-based services and/or brief staff-assisted services and intensive case-managed services (Sultana and Watts 2006, 112). Some public agencies even chose to make the Internet the preferred channel (UK Inland Revenue Agencies). This strategy is now being followed by public employment service in the Netherlands. Other countries were a bit more nuanced that time, but now recognize the value of different channels and try to steer their clients more and more actively toward the online channels. (OECD, IDB and WAPES 2015a, 112).

Therefore, at the beginning of 2000s, multiple channels for delivering services were already in use and multi-channel approach is used by PES organisations. Although channel strategy depends on specific country, in the starting phase, most organisations probably offer most services via most channels (European Commission 2011c, 18). There is evidence that the weight of the traditional service channels in the channel mix has remained relatively important for PES organisations in the short to medium term. (European Commission 2011c, 5) Pieterse & Johnson (European Commission 2011c, 5) have said that when designing channels and the channel-service match, PES organisations should gradually shift from supplying all services via the traditional channels to the integrated strategy where more and more advanced services are being offered more prominently via the electronic channels (European Commission 2011c, 5). In recent years many public employment services globally were confronted with severe austerity measures and the reduction in budget led in some cases to a reduction in the number of staff and offices, and this triggered a strong focus on the use of the Internet as the primary service channel. (OECD, IDB and WAPES 2015a, 111) It shows that different channels can be a conscious choice or necessity.

However, multi-channel service delivery and online service provision is not an easily made change, because many of the PES clients are lagging behind in their use of advanced services probably due to their lower than average socio economic status and digital skills. (European Commission 2011c, 27). Even if PES clients may not be totally ready to receive advanced services through different channels, in developed countries, the Internet has taken on an increasingly prominent position as a channel as part of an integrated service delivery strategy. In countries with very high Internet penetration rates and highly skilled populations (e.g., Singapore, Scandinavia, the Netherlands), the Internet has become even the leading channel in the strategy, with most other channels taking more of a support role. (European Commission 2011c, 12). The OECD, IDB and WAPES Survey data showed (OECD, IDB and WAPES 2015b, 12) that despite increased usage of electronic channels by public employment services, most agencies still use all available channels. More importantly, most survey respondents generally view the full range of channels as important for their service delivery, although there are large regional differences. For example, whereas in Europe and Asia online channels are increasingly the main service channels, in Africa, the Americas, and the Middle East/North Africa, the face-to-face channel remains by far the most prominent one. However, the push forward to more ICT-driven processes is the most mentioned innovation in both developed and developing countries, particularly in terms of adding new channels and delivering more services via mobile phones. (OECD, IDB and WAPES 2015b, 12)

3.2 Multi-channel service delivery in different European public employment services

Although there was already a definition for multi-channelling, in 2009, William Pieteron provided a broader definition to multi-channelling that there was before. In the public service context, Pieteron (2009, 46) defined it as “the use of multiple service channels within one public service delivery process or the use of different channels for different service delivery processes, whereby the different channels relate to each other.” That brought out new understanding that different channels could also support and complete each other. According to the OECD, IDB and WAPES Survey (OECD, IDB and WAPES 2015a, 113), more data-driven services (e.g., registration, vacancy search, job matching) are being delivered online (via websites) and more ambiguous, trust-driven services (e.g., counselling, dealing with complicated employment cases) are being delivered in person. That shows that each channel has its advantages and the combination of channels to offer services could be effective. Also, several studies have shown that a strategy whereby all channels are integrated and blended offers the greatest potential to achieve all three goals, that were mentioned earlier in this chapter – effectiveness, efficiency and satisfaction (OECD, IDB and WAPES 2015b, 12).

The designing of multichannel strategy has been and is still a big challenge for PES, because nature of the services provided and the needs and capabilities of the population must be thoroughly analysed before making this kind of strategic decision. Multi-channel management strategies can be divided into four groups (European Commission 2011c, 10-11):

- parallel positioning: services are offered via all channels with citizens free to decide which channel to choose;
- replacement positioning: channels replace one another based on the assumption that one channel is more effective and efficient than another for a particular task/client group;
- supplemental positioning: each channel has its own characteristics that make it suitable for certain services/client groups;
- integrated positioning: all channels are integrated in the entire service delivery process. This means that all services are offered via all channels, users are steered to the best channel and channels integrate seamlessly.

As mentioned before, nowadays in EU, PES are increasingly using digital channels, but the strategies are different.

According to European Commission's opinion, delivering PES services via digital channels increases the accessibility of the service and enhances PES capacity to deliver services to a larger number of clients (European Commission, PES Digitalised service delivery). Implementation of successful digital service delivery has been more thoroughly discussed lately when European public service organisations have started international cooperation. In 2011 took place the first conference (part of the PES to PES dialogue programme which aim is mutual learning between PES) which focused on multi-channel practices. Overall goals according to the PES mission for multi-channelling are improvement of service quality and efficiency, increase in customer satisfaction, cost reduction, administrative simplification and improvement of processes and in availability and/or accessibility of services (European Commission 2011a, 6). A Peer Review event findings are discussed below.

While comparing different PES, in his input to peer review, Pieterse (European Commission 2011a, 1) points out that few organisations have a truly integrated multi-channel strategy and many focus on keeping all channels open and some on the supplemental value of different channels. According to the analysis, only the Netherlands focuses (mainly) on the replacement of the traditional service channels with online services and uses integration to reach replacement (European Commission 2011a, 8). Germany, Bulgaria, UK and Sweden followed a supplemental strategy where certain channels are used for certain services (European Commission 2011a, 8). Pieterse (European Commission 2011a, 8) stated that there was no shared understanding of what integrated multi-channelling means and that only three PES follow a truly integrated channel strategy (Austria, Estonia and Finland), while other have rather a parallel strategy (Belgium, Slovenia).

In case of overall service delivery, study shows that face-to-face channel was the most frequently used channel in most PES and The Internet (website) was the second most mature channel, followed by the telephone and e-mail/SMS (European Commission 2011a, 12). Social media was hardly deployed, but the Netherlands, Sweden and UK offered information on vacancies via social media (European Commission 2011a, 12). Study revealed that strong role of face-to-face services were in case of these services: information on employment measures, information on suitable vacancies, job vacancy matching, info and guidance by employment advisors, registration of unemployed, deregistration of unemployment records, application for employment programmes and creation/update of individual action plan. Strong role of internet was used only

with these services: information on employment measures, information on suitable vacancies, job vacancy matching and registration of unemployed. Strong role of telephone was used in case of information on employment measures, information on suitable vacancies and registration of unemployed. (European Commission 2011a, 13) In conclusion can be said that in 2011, some information-related services were offered by internet or telephone, but most popular was still face-to face approach. Most PES promoted freedom of channel choice for their clients, but despite this focus, PES also followed some kind of steering policy to persuade the client to use the online channel (European Commission 2011a, 14).

The arising trends in multi-channel management that time were for example individual profiling through technology, use of e-books for jobseekers, automatic vacancy matching, self-help tools and social media (European Commission 2011a, 22). The only country applying advanced profiling through IT was Finland that time. Almost half of PES had some kind of tool as “e-books”. Automatic vacancy matching was used in Belgium, Estonia, Netherlands and was in development in UK that time. A lot of different self-help tools were also in use, for example the introduction of some kind of portal aimed at jobs, careers and/or personal development. (European Commission 2011a, 25) About social media, the use was low – many PES organisations did not use social media, a majority had no strategy and none systematically evaluated the effectiveness and efficiency of these channels (European Commission 2011a, 29).

Key issues in 2011 towards making multi-channel management successful were the digital divide, changes in organisational culture, resources and staff, channel marketing and the measurement of success. Concerns were also IT issues, security issues, creating user-friendliness, keeping abreast of new developments and change of working habits of both staff and customers. (European Commission 2011a, 33) To overcome these issues Pieterse (European Commission 2011a, 38) recommended PES to formulate concrete strategy and have attainable mission and goals. He also said that the success of multi-channel management depends largely on the involvement of customers (customer-orientation and customer satisfaction) and staff training.

Back in 2011 there were many challenges to PES in relation multi-channelling and there was no clear strategy for that in most of the European public employment services. The overall understanding was that for complex situations face-to-face channel is preferred and useful. Telephone channel had rather a supportive role and in case of online channels there was a rising trend to use them more. In addition to online channels, social media had also a place in reaching certain client groups.

3.3 Blended service delivery in different European public employment services

Year 2011 was only a start to a broader discussion to digitalised PES service delivery and how to benefit from that the most. Digitalisation is listed in the European Union's ten-year jobs and growth strategy (European 2020 Strategy) paper as one of eight common key principles necessary for PES to operationalise the strategy (Europe 2020, 14). It states that investments in user-friendly technology are expected to increase service availability and accessibility, and allow PES to keep down working costs and increase performance (European Commission 2014c, 1). Therefore, peer review on the subject of blended service delivery was organised and it took place in Amsterdam in 2014. Discussed were recent developments in blended service delivery strategies and their implementations in national PES (European Commission 2014c, 1). As there was already an interest in multi-channel service offering in 2011, in 2014 even bigger interest in blended service delivery was present, because there is a rapid increase in the number of PES clients with significant digital skills. That is due to both a large pool of young non-employed who have grown up in a world of new technologies, and the fact that modern service delivery has become IT dependent. (European Commission (2014c, 2) Scharle, Weber and Puchwein Roberts (European Commission 2014c, 3) conclude three main reasons, why blended service delivery had become so important topic to PES:

- drive for increasing efficiency;
- PES must offer customized and inclusive services to clients, who need more intensive and often expensive support. This has further increased the pressure to offer online self-service to those capable of using this;
- technological advances have made possible the development of more personalized and sophisticated digital services.

The most important decision was how to blend service channels (online, face-to-face and telephone) in order to increase PES effectiveness in service delivery. There are only a few PES (the Netherlands for example) which had taken the decision to use the online channel as their main service delivery option, and which relegate other channels to support and backup roles. A handful of other PES (Austria, Belgium and Sweden) have built a strategy where different channels supplement each other, and the use of online services is encouraged. The large majority of PES have made the choice to keep all channels open for a number of services while steering clients towards online service. (European Commission 2014c, 4)

According to the study, procedures like initial registration, preparing a CV, searching the vacancy database, job matching, scheduling meetings or posting job vacancies (for employers) are offered online in all participating countries (European Commission 2014c, 5). There is a clear trend among PES in experimenting with moving some of the basic control and counselling functions of caseworkers online for services where the information content can be structured (European Commission 2014c, 6). In other words, the preparation and follow-up of individual action plans and reporting of job applications are now possible online as jobseekers can set up an e-account where their activities are recorded. While these practices were already in place in 2011 in a handful of PES (Belgium, Estonia, the Netherlands and Sweden), since then a number of other countries (for example France and Slovenia) have piloted the use of these building on the good practices of other PES (European Commission 2014c, 6).

A new development among PES was that a number of services in relation to skills development and training needs were also made available online, however the services offered were quite varied (European Commission 2014c, 6). Portugal for example provides online skill self-assessment and skill development tools and suggestions for training courses based on these assessments. The Netherlands has developed online skill enhancement videos and online seminars for their clients. In Estonia, PES uses online tools that facilitate jobseekers finding and registering for training courses offered by external providers. (European Commission 2014c, 6) Sweden uses co-browsing, which was the latest developed in the provision of personalised online support, that offers web visitors tailored support and guidance by specialised and dedicated or employment officers (European Commission 2014g, 2). Another innovation in service blending was the introduction of webinars where many participants can participate in a workshop with an online coach (European Commission 2011d, 3).

A handful of PES monitor their customers' journey through their digital services, identifying points where customers spend substantial time (European Commission 2014c, 10). Some PES (Austria, Estonia, Finland and the Netherlands) also use eyeball-tracking, which is a way to monitor user activity on new webpages to see the way people use the pages, in order to better shape how to design webpages for online services (European Commission 2014c, 10).

The peer review event in 2014 demonstrated that PES have made considerable progress in online delivery of their services, and that they are successfully implementing online self-service variants of data-driven services that used to take up a significant portion of PES staff time (European Commission 2014c, 10-15). PES were also working out innovative ways of guiding

their clients through their online services and seamlessly blending online, face-to-face and telephone channels. These advances have led not only to PES' being able to provide their basic services (registration, job matching) to an increasing number of clients, but also to a customisation of services, with more staff time being devoted to the intensive counselling of clients with lower chances of re-employment. (European Commission 2014c, 10-15) Although very advanced online solutions have been already introduced in many European countries, lots of improvement is still ahead in case of most European countries.

3.4 Concerns with online service delivery in PES organisations

As seen from the above, public employment services are increasingly digitalizing their services and blended service delivery is common in several countries. Pieterse (European Commission 2011a, 38) has found that as the internet-population grows more mature and gets experienced with using eCommerce applications, self-help tools are a promising direction to lower the burden on the existing channels and can help in increasing effectiveness and efficiency. When there is a potential to change the service offering more efficient and there is an assumption that more and more clients get used to online services, multiple channels and blended service delivery should be something to strive for. However, achieving and implementing this is not that easy. Despite the spreading of digitalisation, there remain concerns and difficulties over data protection, authentication of personal identities, interoperability with other public databases and the rigidity of automated processes that may not always allow for the complexity of individual cases (European Commission 2014a, 3). Also, if the design of the original face-to-face service delivery process was inappropriate, digitalisation does not automatically remove such inefficiencies (European Commission 2014a, 3), but smartly designed online services could help to enhance the service delivery process.

Three broad areas of service that PES organisations see much more difficult and less effective to digitalise are (European Commission 2014b, 17):

- 1) counselling, coaching and training;
- 2) services that require personal contact;
- 3) services for clients with low digital skills.

The reasons why these are hard to digitalise are different.

First, the potential exclusion from services due to lack of access to the internet, electronic devices, specific software, or due to specific client characteristics (European Commission 2014c, 15) could make receiving the services complicated. Important is also the fact that online services require jobseekers to have a certain level of soft skills, such as independent learning, working on their own initiative and time management (European Commission 2014d, 14). The absence of these skills could make online public employment services ineffective for those clients. Pieterse (European Commission 2011a, 38) has concluded that while customer-orientation and customer satisfaction are often mentioned by different PES organisations as the main value, only few of them really involve their customers. He recommends that this needs to be done through qualitative research in the design phase and quantitative and qualitative research to evaluate the implementation. “Ideally, the PES organisations should start benchmarking to measure their own progress as well as to make comparisons with other PES organisations” (European Commission 2011a, 38). Therefore, online service delivery could be improved by assessing the current situation and comparing it with other PES organisation’s good practices to get the indication what could be done better to achieve higher profitability and customer satisfaction.

But not only clients’ knowledge and readiness are the concerns in introducing advanced online services. PES must consider the abilities and attitudes of their own staff in order to make IT provision successful. Providing specific training and involving client-facing staff in developing, testing and rolling out new delivery mechanisms can increase staff buy-in and better equip them to help clients with more detailed queries. (European Commission 2014d, 15) Pieterse’s (European Commission 2011a, 38) thinks that staff training should be extensive and focus on answering employees’ complex questions, introduce new IT tools and the use of other channels (serving as a help-desk) to them, while at the same time keep in mind to focus on overcoming the overall resistance to change.

While developing and offering online service delivery, many PES organisations face similar obstacles and these have shifted from being about creating a strategy and IT related issues to being about softer issues such as change management, communication and education/skills (European Commission 2014b, 32). As said before, in case of multi-channel service delivery, measurement and evaluation are crucial for success and although most organisations collect basic statistics (e.g. number of visits per channel), only few collect the more advanced data that is required to evaluate multi-channel management progress and make informed decisions (European Commission 2011a, 38). Estonian Unemployment Fund is not different and the same crucial evaluation and research has not been done so far.

4. Research methodology and research questions

Current chapter focuses on research methodology and research questions. As seen from previous chapters, Estonia already has a lot of services online, but cooperation between European public employment services has shown that some other countries have practiced even more advanced online solutions for offering the same public employment services. Until now there is no research about whether it would be wise to implement the same advanced online solutions in Estonia and how other advanced e-service practices fit in Estonian context. For understanding that, study among employees and clients must also be carried out to find out what clients expect from EUIF's online services and how EUIF's employees feel about offering services online. This kind of research has not been made, although that is essential to assess whether and what could be improved with EUIF's online service delivery.

4.1 Research questions

This segment gives an overview about research questions that are asked to understand the central problem and possible solutions for that. As mentioned before, the thesis focuses on self-service solutions for private clients and therefore is investigated only this EUIF client segment.

The work is built on a number of research questions. Main research question is: How to improve the existing self-service process of employment mediation for Estonian Unemployment Insurance Fund?

To answer the main question, following sub-questions are asked:

- 1) Which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia?
- 2) How to improve the existing self-service process of employment mediation from clients' perspective?
- 3) How to improve the existing self-service process of employment mediation from employees' perspective?

These questions help to find out, is there a need, justification and motivation for improvement of EUIF employment mediation self-service process. Also, what can be improved with Estonian current process and by which measures to do it. The hypothesis of the work is that Estonian Unemployment Insurance Fund is able to provide employment mediation service more

efficiently (can better serve their clients) when they have the possibility to serve more clients via self-service and where all the advantages of digital channels are used.

4.2 Research methodology

The study tries to find out what could be improved with Estonian employment mediation self-service process and how it could be done from clients' and employees' perspective. The parallel will be drawn between Estonia and other countries that have existing effectively working self-service solution for entire process or for some parts of the process. The chosen methodology of this paper is action design research which consist of case study research and analysis and qualitative research and analysis. As the author is currently working in the organization, action design research is used to answer the research question. "Action design research is a research method for generating prescriptive design knowledge through building and evaluating ensemble IT artifacts in an organizational setting." (Sein et al, 2011, 4) That method focuses on the building, intervention, and evaluation of an artifact that reflects not only the theoretical precursors and intent of the researchers but also the influence of users and ongoing use in context. (Sein et al, 2011, 4)

In order to answer the first sub-question, case study research will be compiled and in depth is analysed the Netherlands practice in the field of online service delivery in PES. Previous chapters have already given an extensive analysis and insight about literature and practices about existing solutions in the field. As seen from the literature, the Netherlands stands out with it's advanced online solutions and was therefore chosen for a case study. As in the Netherlands the entire service delivery is mediated by technology (with little exceptions), it will be valuable input to the analysis. Case study research in form of documentation analysis will be carried out to explore in greater depth how the Netherlands has established their employment mediation system and what can Estonia learn from country's practices in order to improve its self-service process.

To answer second and third sub-questions, qualitative research is carried out with surveys among clients of EUIF and among EUIF's employees. There is a strong need for investigation to understand, whether clients and EUIF employees see the need for improved system and clients' and employees' opinion is gathered in order to gain an understanding about their expectations and motivation for implementing new solutions. Questioned will be clients who have entered EUIF self-service portal (web questionnaire) and clients who visit one EUIF's branch (questionnaire on paper). Employees will be questioned with web questionnaire.

Web survey (see APPENDIX 2) for clients will be in Estonian and Russian language in EUIF's self-service main page for at least two weeks and it is voluntary to answer to it. The questionnaires on paper (see APPENDIX 1) will be divided to clients who visit EUIF's Lilleküla branch in Tallinn during one week and it will be also in Estonian and Russian language and voluntary to answer. Lilleküla branch was chosen because it is the biggest and probably the most innovative branch in Estonia – employees of the branch were motivated to offer the questionnaires to clients and explain why the survey is carried out. The branch was chosen also because it would reflect the opinions of both Estonian and Russian client segments (just like web questionnaire). Web survey for employees (see APPENDIX 3) will be sent to different e-mail lists to analyse the responses of large sample of staff who is working with clients.

As the author of the thesis is currently working in EUIF, information about current usage of EUIF self-service by clients will be also shortly mentioned by using statistics from Google Analytics. That will help to integrate objective and subjective data to get the best outcome and evaluation from the research.

The main research question is answered by analysing the results of the surveys, statistics and also the findings from the Netherlands' case study. The findings from the different research parts will together help to understand what measures should be used to improve current self-service and how Estonia should do it. Possible solutions for Estonia together with the opinion about the feasibility of them is offered.

Action design research method was chosen because it the author of the thesis is currently working in EUIF and it was possible and also needed to carry out direct study among employees and clients. The results from the surveys will show the opinions about current solutions and whether more innovative ones are needed from the perspective of clients and employees. As Estonia takes part in cooperation between different European public service organisations, it was important to analyse and compare the developments in online service delivery with other European countries and especially with the Netherlands as it stands out with advanced and innovative solutions.

Analysis is important because it will show what is possible to change in case of Estonia's current self-service solutions and is it reasonable to develop it further or current solutions are enough to achieve the maximum benefit for clients and for organisation itself. Chosen methodology and approaches are best because they enable to get direct feedback from clients and employees and

the absence of that was one of the main problems that current thesis is aiming to resolve. Other approaches (for example direct interviews) would have been also an option for research, but surveys are chosen to get the wider feedback from as many clients and employees as possible. The disadvantages of the chosen approaches could be low percentage of responses and the fact that respondents can not answer the additional questions or specify their answer because of the anonymity of the questionnaires. Although that could be also an advantage because there would be no fear to answer honestly as the questionnaires are anonymous.

5. Results

Current chapter reveals main findings of the study and tries to answer the posed research questions. First segment is the Netherlands case study, which is based on literature research and describes the development of advanced online service delivery solutions and also points out the concerns with them. Second segment offers some statistics about EUIF's self-service usage. Finally, findings from the three different surveys are described.

5.1 The Netherlands' case study

5.1.1 Towards digital service delivery in 2011

The Netherlands' PES analysed their multichannel approach and concluded in 2009 that although many clients entered the organisation via digital channel (70% online registration and over half a million unique online visitors with over 2 million visits a month), the services offered by the digital channel were insufficient to deal with customer demands (European Commission 2011e, 3). As a result, clients fell back on the other channels, especially to face to face channel, but also to telephone channel for additional support. Then Netherland's PES understood that for a real multichannel policy they have to develop a digital service that equals the face to face service level. (European Commission 2011e, 3)

To make a shift to digital service delivery, in 2010 was started a program to develop the digital channel to a full service channel by 2014 (as a primary channel in a parallel position next to the face to face channel) (European Commission 2011e, 3). The main assumptions of the programme were (European Commission 2011e, 3): 1) clients want time and place independent service 24/7; 2) apply and use of modern technology; 3) automatic standard procedures – saving time and preventing errors; 4) online coaching (personal coaching only for clients who really needed it) and 5) efficiency. The demands were that it has to work technically perfectly, it has to be functional (handy and accessible), there must be sufficient value in e-services and all channels should be open/integrated for support (European Commission 2011e, 3).

The objective to develop parallel online service channel was also political. “By the start of the new Dutch government in October 2010 the policy of the government on public employment services made clear that citizens and employers are called upon to take responsibility themselves

in the labour market, with a PES that is downsized and realises basic services for employers and jobseekers, control, transparency and registration. Special face to face services were only delivered for specific groups up to 10% of the clients. (European Commission 2011e, 4) This policy made severe budget setbacks (for example 40% budget cutback in 2014 on face to face services and a decrease from 100 to 30 offices) (European Commission 2011e, 4). Therefore, the Netherlands' PES had four years for developing digital platform to serve 90% of the clients there (European Commission 2011e, 4). That approach required a new legal regulation which would make it compulsory for jobseekers to use the internet to access PES services. Only if a jobseeker can prove that they cannot use internet will the PES have to provide face-to-face services. (European Commission 2011d, 2)

To realise that policy, PES defined three stages (European Commission 2011e, 4):

Stage 1 (2011): Basic services via the internet. Digital registration, online services via e-book, e-coaching, automatic matching, interface with back office system. In addition to the online services they offered face to face workshops to jobseekers via the offices.

Stage 2 (2012): Online profiling, targeting services for specific client groups, more transactions via online channel e.g. control, reports, e-coaching and e-learning. In addition to the online services they still offered face to face workshops to jobseekers in offices.

Stage 3 (2013): Fully automated interaction and transaction via digital channel. The “e-book” is the main platform for clients to interact with PES and it has an interface with the back office system in order to monitor client actions.

PES steered clients actively to the use of the digital platform for interaction with employment advisors, especially in the first three months of unemployment. In 2011 they piloted an automatic process for online registration/application and digital continuation of services without personal or call centre intervention. (European Commission 2011e, 8) In 2011 PES had profiling tools only in face to face channel and clients who registered via the digital channel were considered to be able to start services via e-book. In 2011, PES used the digital platform (e-book) for jobseekers whereby clients can respond to tasks, use and save mailbox, check their profile and share an individual action plan, documents and other information with the advisor/e-coach. The advisor monitors messages and tasks and shares documents with the client via the interface. E-book was redesigned in 2011 based on the results of monitoring data on customers' behaviour. (European Commission 2011d, 4)

PES uses standardized action plan for the first three months (one for people with unemployment benefit and one for ‘job changers’) outlines what both parties can expect from each other, and the actions taken by both parties (European Commission 2011d, 4). After three months, further profiling and segmentation took place and face to face evaluation contact was made with clients. Then PES staff evaluated, whether the client continues in digital channel or more specific counselling is necessary in face to face channel. (European Commission 2011e, 8) Also were developed self-assessment tools and every three months, participants receive a self-assessment module to complete. If they score below a certain score, they are referred on to complete relevant training modules. (European Commission 2011d, 3) After 12 months only internet support is further offered and municipalities are responsible for ALMP measures for integration (European Commission 2011d, 1).

The Netherlands’ PES had two self-help tools developed in 2011 (European Commission 2011e, 10):

- 1) “Werkverkenner” – self-help tool for indication on chances in job finding in relation to labour market;
- 2) “Persoonsverkenner” – (self)help tool for assessment on personal aspects in relation to job seeking.

In ‘werkverkenner’s case, client-input on region, age and function are matched with job finding data over the last 3 months. It generates advice on chances of job finding and gives alternative options in the search for jobs. In ‘persoonsverkenner’s case, client input on certain personal aspects proven to be predictions for long term unemployment. The score based on the client input is the basis for the PES advisor to discuss interventions with the client. (European Commission 2011e, 10) Based on the clients’ profile, automatic matching was also directly provided. (European Commission 2011d, 8) In 2011, the Netherlands’ PES already used social media channels also. They served customers via web care team on LinkedIn, Facebook, Twitter and Hyves.

In conclusion, the Netherlands’ multichannel approach says that: “Digital where possible, personal where necessary” (European Commission 2011e, 3). The platform demonstrates that e-services can, in many ways, be very personalized and interactive and the results show that there are similar integration outcomes for jobseekers using online services to those using the traditional service offer (European Commission 2011d, 3). Customers mention freedom and trust

instead of control from PES as important aspects. (European Commission 2011e, 13) At the same time surveys show that in 2011 not all customers were ready to use e-services. Almost half preferred face-to-face services, an adviser to speak with, ask personal questions and get personal advice (Value for money 2014, 14). It was a big concern how to deliver the right service, via the right channel, to the right client at the right time (European Commission 2011e, 16). Another concerns were:

- the limited amount of high quality e-services (Value for money 2014, 14);
- coping with technical demand in a quickly changing digital world: technical stability and service level, accelerating time to market, new techniques;
- how to meet changing customer behaviour and increased demand for online (self)services whilst also meeting government demands on control, regulations and legislation (European Commission 2011e, 16).

PES has said that client participation and training and support for employees are essential for managing the change (European Commission 2011d, 5). The Netherlands' PES has found that multi-channelling triggers the PES to be more aware of and alert to client behaviour and demands. Their design approach is therefore very user-centred and services are developed including the use of a typology of different PES customers and also customer panels to get feedback on proposals. (European Commission 2011d, 4) It is also clear that the development of customer-oriented e-services takes time, but at the end of 2013 a small increase of customer satisfaction became visible in Netherlands also. That was largely because of improving existing e-services and the development of new e-services. (Value for money 2014, 14)

In addition to customer satisfaction, evaluation of different service channels is also important. In 2011 there was a lack of data available in the Netherlands to compare the effectiveness of face-to-face provision and online services in reintegrating jobseekers into the labour market. There was also very little information available on the costs of online provision and how this compares to face to face provision. (European Commission 2011d, 8) To improve this, data about online client behaviour was constantly gathered and PES planned to use Business Intelligence to analyse this data (European Commission 2011d, 6).

5.1.2 Recent developments

In 2014, 95% of unemployment benefit recipients was registered via the Internet and 85% clients actively used e-services (European Commission 2014h, 1). In the transition period to e-services, the Dutch PES grew their understanding of service effectiveness, customer behaviour and

satisfaction and this led to improvements in both interactive e-services and face to face services through continuous adjustments. Although the digital channel will continue to remain the primary channel, e-services can also be incorporated with face-to-face services. (European Commission 2014h, 1) That is a sign that blended service delivery appears to be most beneficial. The Netherlands' PES has found that certain services are still better delivered by combining the e-channel with telephone or face-to-face channels, such as labour market activation and enforcement, in depth coaching or group training. (European Commission 2014h, 16) "The reason for this is due to incomplete e-services and the speed of development, because of shortcomings in the available technologies and architecture, and because blended services give (at this time) better results." (European Commission 2014h, 16)

Customer journey after registration in the Netherlands' PES requires that, first three months, clients use only e-services. In the 4th, 7th and 10th month of unemployment, a personal interview takes place either by phone or face to face. Between 3 and 12 months: automatic personal e-coaching and all general e-services are available on the jobsite. After 12 months: any suitable job offer has to be accepted by the jobseeker. (European Commission 2014h, 7) There are online support team who helps customers who have troubles using online services. For those who are unable to use digital services even with help, they receive the same training, but in PES office (face-to-face). (European Commission 2014h, 10) That means although the digital channel is the primary channel for service delivery, the development of both e-services and face to face services have led to blended services where online tools can be used to support face to face services. (European Commission 2014h, 11)

In 2014 new digital profiling tool was in use to support face to face services. 'Work Explorer' is an instrument that works with 'hard' and 'soft' personal characteristics and the purpose of the profiling instrument is to figure out why the jobseekers have not yet returned to work and which jobseekers need help to avoid falling into long term unemployment. (European Commission 2014h, 12) The tool is very helpful as 11 variables are examined and this is used during personal evaluation interviews in the fourth month of unemployment Consultants can use this profile information to help a jobseeker to overcome eventual barriers. (European Commission 2014h, 12)

The transformation to e-services required also a complete adjustments of employees' skills (through training) as employees were not used to the digital way of communicating or using digital components in face to face services (blended services). There was a need to inform them

regularly about PES's achievements and future plans, and train them for online skills (European Commission 2014h, 1). It is also important to mark that the change in service delivery channels was not wanted by all employees, including the Netherlands' PES managers. The acceptance of managers is however crucial for the successful implementation of this kind of shift. (European Commission 2014h, 16)

During the PES redesign process, it appeared that 15% of jobseekers had a need for face to face services (European Commission 2014h, 2) and studies have shown significant net-effects of certain face-to-face services, which also supported the need to blend services as effectively as possible (European Commission 2014h, 2). Part of the users resisted using e-services and the media were critical with respect to the stability and therefore access of to PES systems. However, the PES is constantly developing new services and therewith adjusts to the growth in consumer demand for online services. (European Commission 2014h, 6-7) The development of customer-oriented (digital) services takes time. (European Commission 2014h, 24) and the question for face to face services remains: for what jobseekers and components of the customer journey will this remain the key service? (European Commission 2014h, 29). Therefore, a main challenge resides in constantly monitoring whether the unemployment recipient is using the right channel and from the it might appear that face to face services are more suitable and vice versa (European Commission 2014h, 29).

In conclusion, budget cuts in the Netherlands have resulted in a shift away from face-to-face service delivery to a primarily digital service delivery along with a stronger emphasis on encouraging greater self-reliance among jobseekers and focusing resources on those clients most in need of support (European Commission 2015b, 4). However, until now remains the question about the role of face-to-face services in PES and the Netherlands' PES has found that blended service delivery is the most beneficial at this time.

5.2 Estonian statistics

Since October 2015, Estonian self-service portal is equipped with Google Analytics tool which helps to give an idea of the EUIF's self-service usage. Working aged population in Estonia (aged 15-64) was in the beginning of 2015 more than 800 000 people (Economic Research) and there is more than 100 000 EUIF's self-service users in a month (average over the last three months).

Approximately 16% (more than 1500 in a month) of applications are submitted in self-service (average over the last three months). 8% of the started applications fail to submit. (Google Analytics) The reasons behind that have not been analysed yet. Approximately 3340 CV-s are inserted to self-service in a month and clients have applied for work approximately 1550 times in a month through self-service (average over the last three months). To report about their job-search, averagely 567 filled e-diaries have been submitted in a month (average over the last three months). (Google Analytics)

While talking about statistics, it is also important to mark that all the working age persons are potential EUIF's self-service clients and do not need to submit an application for using self-service portal.

5.3 Results from questionnaires

Fallowing chapter reveals the results of three questionnaires: a web survey carried out among employees of EUIF, a paper survey carried out among clients of Lilleküla branch and a web survey carried out among self-service clients. All the surveys were carried out in April 2016 and the questions concentrated on EUIF's homepage and self-service portal as well as on possible new developments. All the questionnaires were different considering the target group (employees, self-service users and branch visitors) (see APPENDIXES 1-3). Answering was voluntary in case of all three and results are presented below. As the questionnaires contained also open questions, conclusions and examples of answers are presented.

5.3.1 Web questionnaire for employees

As the author of the thesis is currently working in EUIF, the questionnaire to EUIF employees (see APPENDIX 2) was sent out on in April through e-mail to different e-mail lists which approximately consisted of 350 recipients. As the answering was voluntary, there were 110 respondents in total.

Respondents' positions were represented as follows: 15,5% were information specialists, 25,4 were case managers, 11,8% were job mediation specialists, 9% were service consultants, 8,2% were career consultants, 7,3% were senior specialist/head of services, 6,4% were head of department/office managers, 6,4% were senior consultants, 5,5% were career information specialist and there were also answers from employers' consultant, IS analytic and IS development manager. As seen from above, most of the respondents were employees who have

direct contact with EUIF's clients. The age groups of the respondents were quite equal: 19,1% were up to 29 years old, 30,9% were 30-39 years old, 26,4% were 40-49 years old, 20% were 50-59, and 3,6% were 60 years old or more.

To get a better understanding of what EUIF's employees know about self-service possibilities, following question was asked:

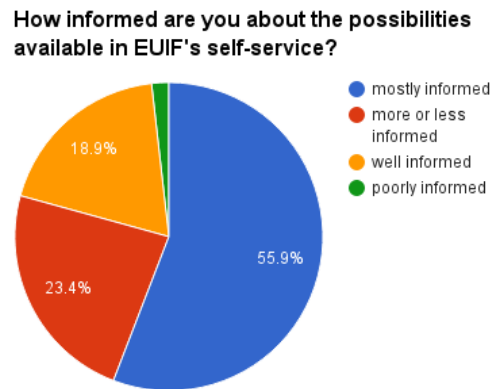


Figure 1. Distribution how informed are employees with possibilities in self-service

Answers show that 18,9% think they are well informed, most of the employees (55,9%) think that they are mostly informed and 23,4% of employees think that they are more or less informed. Only 1,8% are poorly informed and nobody answered that they were not informed at all.

Questionnaire also tried to find out how often employees currently offer the possibility to report about job-search progress through self-service. Following distribution formulated from the answers:

How often do you offer your clients the opportunity to report their job-search progress through self-service?

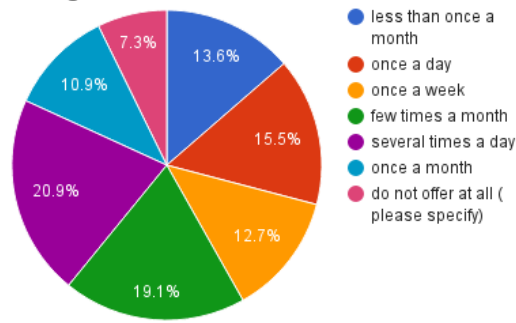


Figure 2. Frequency of offering opportunity to report about job-search through self-service

Employees who do not offer the possibility at all were commonly the ones who do not consult clients. Most of the employees offer it several times a day, once a day or few times a month.

It was also essential to find out to what kind of customer segments employees offer the opportunity to report their job-search progress through self-service. The distribution of answers was following:

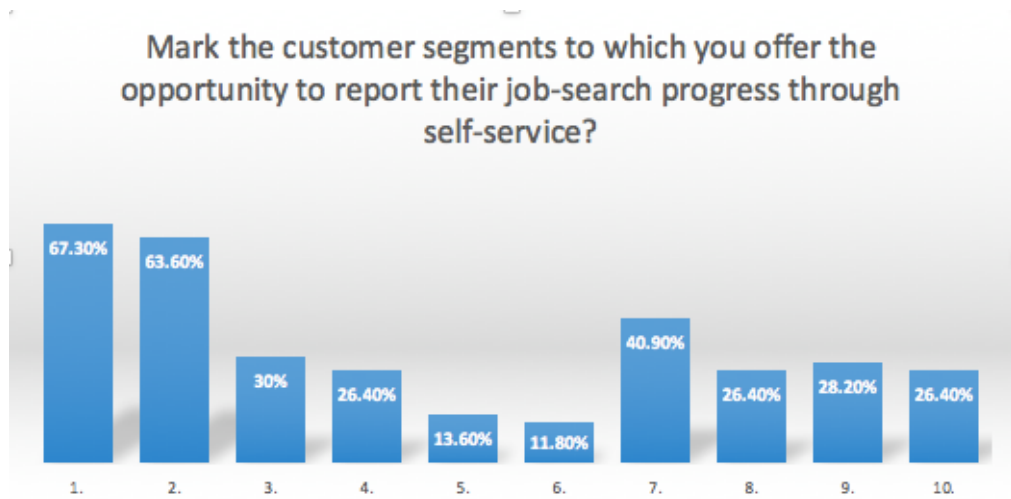


Figure 3. Distribution of customer segments to which self-service possibility is offered

1. Younger customers with good computer skills who speak Estonian.
2. Older customers with good computer skills who speak Estonian.

3. Young customers with good computer skills who do not speak Estonian.
4. Older customers with good computer skills who do not speak Estonian.
5. Long-term unemployed.
6. Long-term job seekers.
7. Unemployed for a short time.
8. Job seeker for a short time.
9. All clients regardless of age, period of unemployment, language and computer skills.
10. Other (please specify).

As seen from the diagram, employees mostly offer self-service option to younger or older customers with good computer skills who speak Estonian. These clients who are unemployed for a short time are also favoured to offer the possibility. 28, 2% of employees offer self-service opportunities to all clients. 26,4% have marked the possibility “other”. Some of them have specified their answer and said that they offer it to employers. Most of them says also that they offer it to clients who have access to self-service portal (ID-card/mobile-ID), who can organise their job-search independently and who have motivation for that. Customers with special needs or reduced mobility are also brought out.

Next question asked to assess employees’ current customer portfolios about the clients’ readiness and willingness to use self-service. The opinions of employees distributed as follows:



Figure 4. Customer portfolio's readiness and willingness to use self-service

Most (57,3%) of EUIF's employees think that only small portion of clients are ready for using self-service. 35,5% thinks that half of the clients are ready and small portion (7,3%) of employees sees that most of the clients are ready for that.

As employees view about the current self-service portal is also important, next question asked them to assess the possibilities in self-service:

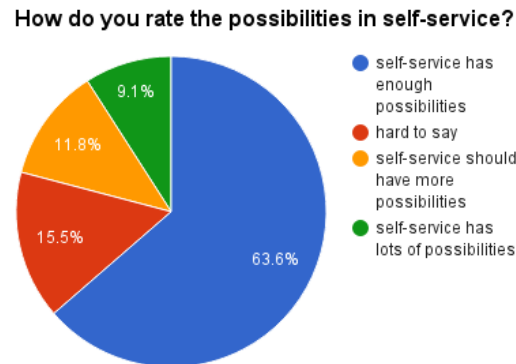


Figure 5. Assessment of the possibilities in self-service

A big portion of the employees found that there are enough possibilities. Other answers were not outstanding but it is important to mark that no one found that there were too few possibilities even if it was an option.

To question "should self-service have more possibilities" 61,8% of employees answered "no". Some of them (36 employees) explained it also. Most of the specifications stated that there's already enough possibilities and most of the clients do not even use the existing ones. More mentioned explanations why there should not be more possibilities were related to topics that non-Estonians have difficulties to use it, ID-card sets a restriction for using and face-to-face contact is considered important. Wanted possibilities are opportunity to digitally sign individual action plan in self-service and employees think that more information and possibilities could be in Russian language.

Next question was about what employees would do if there would be more possibilities in self-service. The distribution of thoughts is following:

If additional online services were added to EUIF self-service (i.e consultations via skype/phone) would you offer the self-service opportunity to clients more frequently?

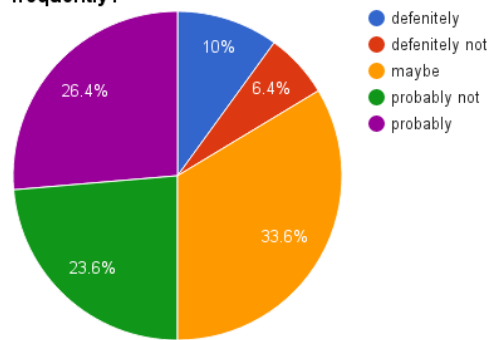


Figure 6. Opinions about the offering of self-service solutions

Overall opinion seems to be “maybe” and employees are not sure whether they will offer self-service more frequently to clients.

Literature review and case study brought out a lot of opportunities that different countries have already implemented online. To get the understanding, whether EUIF’s employees also see the need for them, a question about following opportunities was asked:

1. Possibility to report job-search progress only through self-service channel on first 3 months (during that time visiting the office is not required and skype/phone are used for communication).
2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication.
3. Counselling via phone/skype as a call.
4. Counselling via e-mail.
5. Individual video-counselling (for example via skype).
6. Individual counselling via Chat.
7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat).
8. Active use of facebook (post, answering to personal messages, offers).

9. Video courses, motivational videos, helpful tips and tricks.
10. Job interview simulation (practicing for a job interview).
11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen.
12. Fast exchange of documents and receiving feedback via self-service.

The outcomes of the question were following:

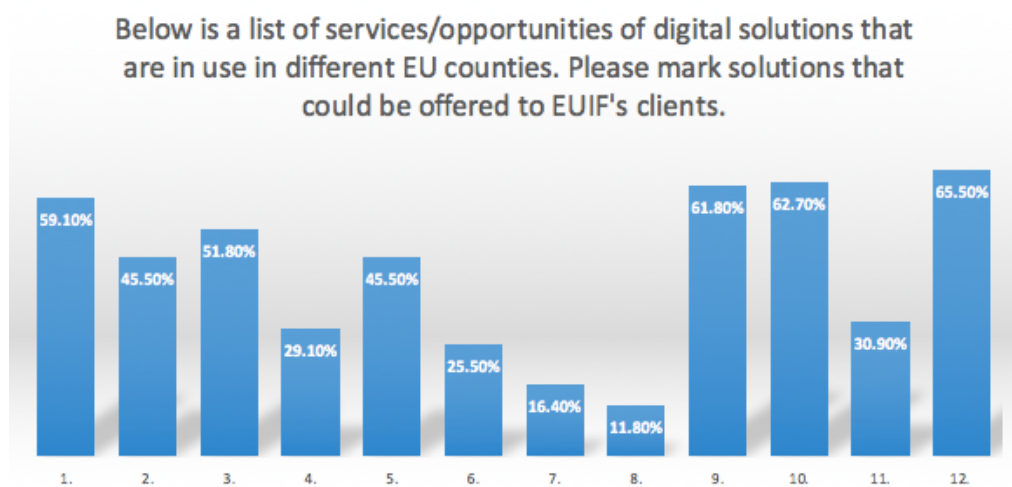


Figure 7. Distribution of solutions that employees would offer to clients

Answers show that employees would mainly like to see the possibilities to exchange documents in self-service, have job interview simulation, have video courses, motivational videos, helpful tips and tricks and possibility to report your job-search progress only through self-service channel on first 3 months. Individual video-counselling and clients' possibility to choose the communication channel were also mentioned more frequently.

If employees were asked about their motivation to offer clients the solutions listed in the previous question they answered that they are rather motivated to do so (46,3%). 28,2% found that it is hard to say and 20% said that they are very motivated. Only 5,5% said that they are rather not motivated. In addition, 25 employees also commented that question. Some of them think that innovative solutions are always good and clients with special needs or reduced mobility would benefit from them. Money and time-saving are also mentioned. Some of the recipients bring out the problem with clients' digital skills and some find that face-to-face counselling is more influential.

Employees were asked about their technical skills to serve clients using more innovative digital solutions. 49,5% of employees answered that they are rather competent enough, 24,8% said that they are ready for that and 21,1% found it hard to say. Only 4,6% said that they are rather not ready for that. Some employees specify that they are ready, but would need trainings.

To the question “Do you think that job-search process could be more independent for some client segments and services could be offered mostly online” 70,9% employees answered “yes”. Employees also marked, which customer segments could be served via self-service:

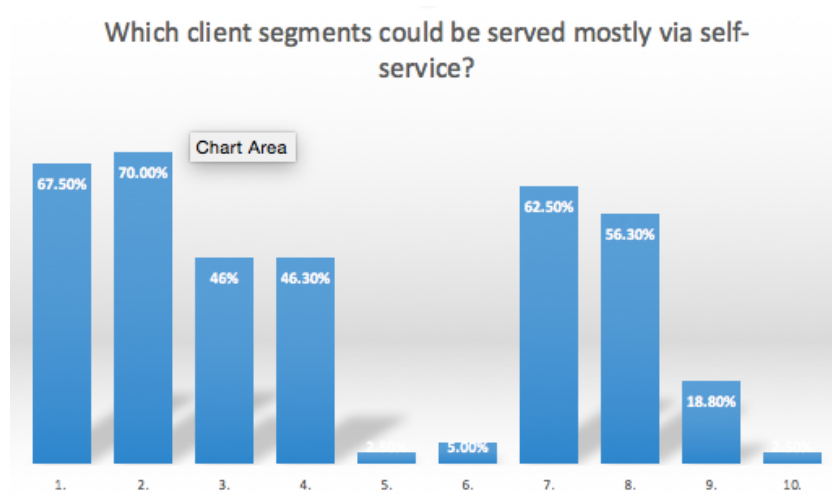


Figure 8. Distribution of client segments that could be served via self-service

1. Younger customers with good computer skills who speak Estonian.
2. Older customers with good computer skills who speak Estonian.
3. Young customers with good computer skills who do not speak Estonian.
4. Older customers with good computer skills who do not speak Estonian.
5. Long-term unemployed.
6. Long-term job seekers.
7. Unemployed for a short time.
8. Job seeker for a short time.

9. All clients regardless of age, period of unemployment, language and computer skills.

10. Other (please specify).

As diagram shows, younger or older customers with good computer skills who speak Estonian are the most popular segments. Marked are also younger and older clients with good computer skills who speak Estonian. Also short time unemployed and job-seekers. Question had also comments (13). Most of the comments said that computer skills, age and language are not primary. Primary is the motivation of client, willingness to seek solutions to the problems independently and to move towards the goal.

Next question was about the workload changes in case of digital service delivery. 42,7% of employees answered that there would be no change, 27% are not sure, 17,3% think that workload would increase and 12,7% answered that it would lessen. 37 employees have also commented that question. An opinion that workload would not change stands out. Employees rather find that clients move to different channel but there is still the same work to do. Several find that digital service delivery could take even more time because it is harder and time-consuming to explain things over internet or phone. Several wrote that they still have to analyse the service needs because services are based on the real needs –they find face-to-face meetings more efficient. Brought out are also the importance of control and client support. Two interesting ideas were also mentioned. If introduction of services would automatically appear after registering to self-service, clients would read more about them. Also that self-service should analyse automatically clients' service needs and video-introduction about them should be automatically offered.

Then was asked how employees' work tasks and nature of the work would change in case of new digital services. EUIF's employees found that there could be communication errors, unjustified hopes for services, their work would be more directed to exchange of information and control and client support line would be needed. Most of the employees answered that work would be more technical and computer-centred. At the same time several thought that nothing would change. Some find it useful and more effective, but large proportion of respondents think that face-to-face communication is better, because it is clearer and motivates clients more.

Last question in employees' questionnaire was about the beneficiaries in case on online services. The answers distributed as follows:

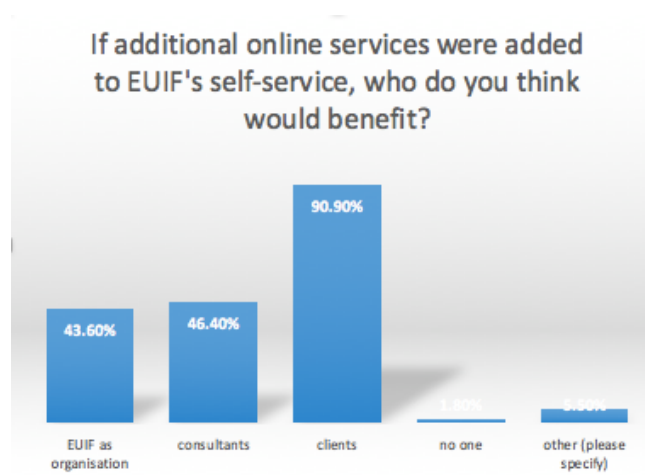


Figure 9. Beneficiaries of self-service

Employees found that clients would be the main beneficiaries. 1,8% of employees think that no one would benefit and others (5,5%) commented that all parties would benefit or they were unable to determine that.

There were also employees' comments in the end of the questionnaire. It is worth to bring out that employees thought it takes time to get used to new things and EUIF should analyse other countries' experiences. Also that EUIF should analyse every change without forgetting the bigger picture. Some found that it could be possible to gain efficiency but it is hard to assess during the initial meeting which client is independent enough to use self-service.

5.3.2 Paper questionnaire for clients

The second survey was carried out among clients who visited Lilleküla branch during one week (04th of April until 8th of April 2016). Questionnaires on paper (see APPENDIX 1) were distributed to clients by information specialists and personal consultants (job mediation consultants, case managers) and answering was voluntary. The questions were designed such that they could be responded by self-service user or by clients who had not visited self-service. 105 clients filled paper questionnaires during that week.

Gender of the clients responded divided as follows: 61,5% female and 38,5% male. The age groups of the respondents were relatively equal – 28,6% were up to 29 years old, 28,6% were 30-39 years old, 20% were 50-59, 18,1% were 40-49 years old and 4,8% were 60 years old or more. Most of the respondents had been EUIF's clients less than 6 months (61%), 22,9% had been clients 6-11 months and 16,2% had been EUIF's clients more than 12 months.

All the clients had visited EUIF's homepage. EUIF's self-service can be used only with ID-card/mobile-ID. As it is important to find out, whether EUIF's clients are possible self-service users at all, the question about ID-card/mobile-ID usage was asked and the results were that 66,3% normally uses ID-card or mobile-ID to log in to different web sites. Almost the same percentage (68,6%) has logged in to EUIF's self-service portal.

As clients' willingness and motivation to use self-service is important, it was essential to find out whether they find themselves competent enough to use it. To find out how clients themselves assess their competence to use self-service, following question was asked and answers divided as follows:

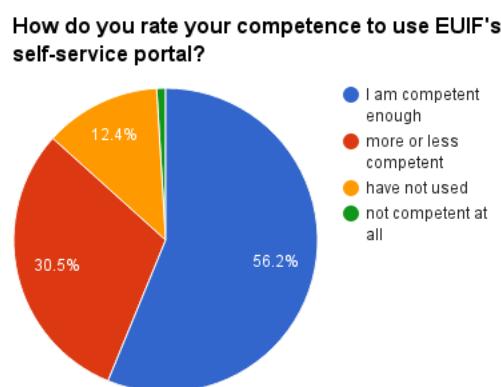


Figure 10. Competence to use self-service portal

Most of the clients find themselves competent enough to use self-service or more or less competent.

To understand if consultants also saw the advantages of self-service and are in general willing to offer clients the possibility to use it, a question "if consultant has offered the possibility to report about job-search progress through self-service" was asked from clients. 61,2% of the clients answered that consultant has offered it.

To have a better understanding about EUIF's clients wishes and opinions about online service delivery following questions about self-service's usability was asked:

If you have used self-service, how satisfied were you with it's usability?

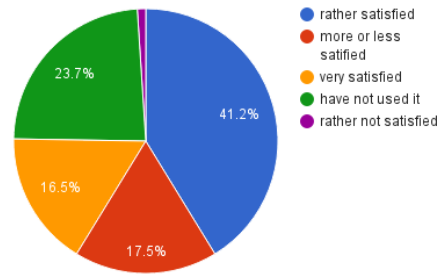


Figure 11. Satisfaction with the usability of self-service portal

Diagram shows that clients are rather satisfied with self-service usability. 16,5% even very satisfied. No one answered that they are not satisfied at all and only 1% of the respondents said that they are rather not satisfied.

Similar question about the possibilities in self-service was asked:

If you have used self-service, how satisfied were you with it's possibilities?

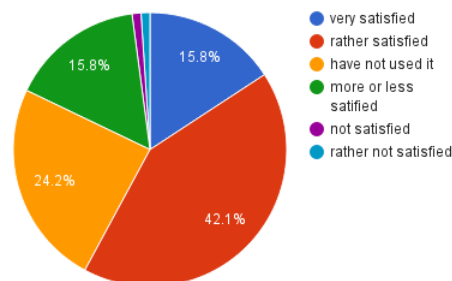


Figure 12. Satisfaction with the possibilities in self-service portal

Diagram shows that clients are also rather satisfied in case of self-service possibilities. 15,8% even very satisfied or more or less satisfied with the current possibilities in self-service.

Then two questions were asked to get a clearer understanding about what clients like and what not. 50 clients responded to the question “what do you like about self-service portal”. Clients brought out the abundance of information (16 answers), simplicity and clarity (17 answers) and job and training related opportunities (9 answers). There were also those, who said that they like everything (6 answers). Clients mentioned also the opportunity to upload business plan, the

possibility to do all actions in self-service, pre-registration as unemployed, privacy, possibility to submit and view applications and possibility to fill e-diary.

Next question was “what do you do not like like about self-service”. 30 clients responded to that question. 8 of them answered that they do not have complaints and they like everything. Others found that self-service’s usability and design is not good (11 answers), some clients brought out that there should be a possibility to log in with bank codes (2). Mentioned were also that it is difficult to make changes if there is a necessity, level of detail in the distribution of jobs is not good, and the should be precise explanation of conditions and more speed selection links.

After found out what clients like and do not like, there was a need to ask which channel clients prefer. The answers distributed as fallows: 31,7% of clients found that they prefer office and face-to face communication, 32,7% of the clients prefer self-service and web/telephone communication and 44,6% said that both are suitable. The results show that clients do not have a clear preference about the communication channel.

To get a better understanding whether clients would use self-service more if there would be more possibilities, question about it was asked. Answers distributed as fallows:

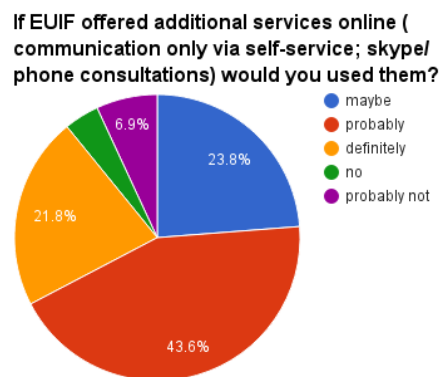


Figure 13. Distribution of the possible usage of additional online services

As seen from the diagram, most of the clients would definitely or probably use new possibilities. 23,8% thinks they may use them, 6,9% says out that they would probably not use them and 4% of the clients would not use them for sure.

Literature review and case study brought out a lot of opportunities that different countries have already implemented online. To get the understanding, whether Estonian clients also see the need for them, a question about following opportunities was asked:

1. Possibility to report about job-search progress only through self-service channel on the first 3 months (during that time visiting the office is not required and skype/phone are used for communication).
2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication.
3. Counselling via phone/skype as a call.
4. Counselling via e-mail.
5. Individual video-counselling (for example via skype).
6. Individual counselling via Chat.
7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat).
8. Active use of facebook (post, answering to personal messages, offers).
9. Video courses, motivational videos, helpful tips and tricks.
10. Job interview simulation (practicing for a job interview).
11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen.
12. Fast exchange of documents and receiving feedback via self-service.

The outcomes of the question were following:

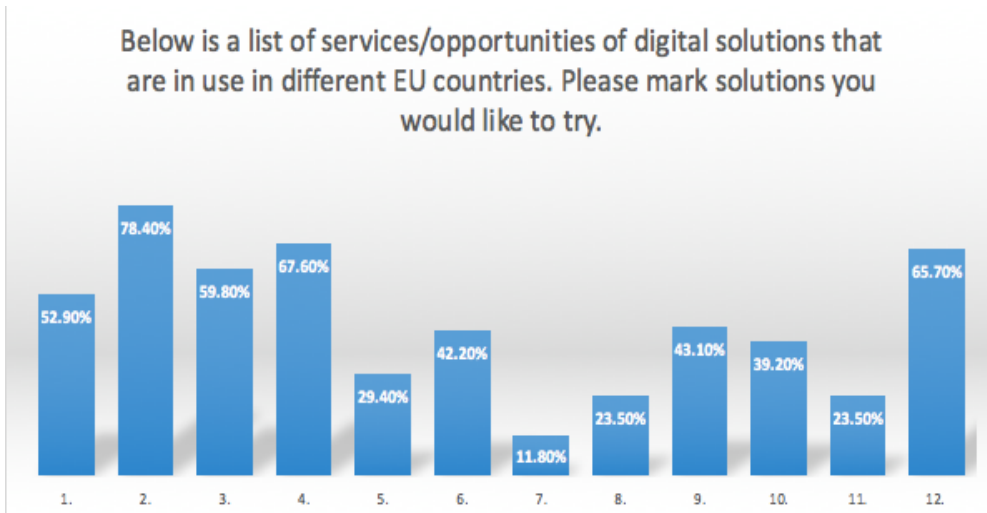


Figure 14. Distribution of solutions clients would like to try

From that can be concluded that clients would mainly like to have the possibility to choose the communication channel themselves. They also like the opportunities to communicate and consult via e-mail and telephone and exchange documents through self-service. Noteworthy is also the option to report your job-search progress only through self-service channel on the first 3 months. The least wanted is group video-counselling.

Final question was about the usefulness of self-service in job-search. The answers distributed as follows:

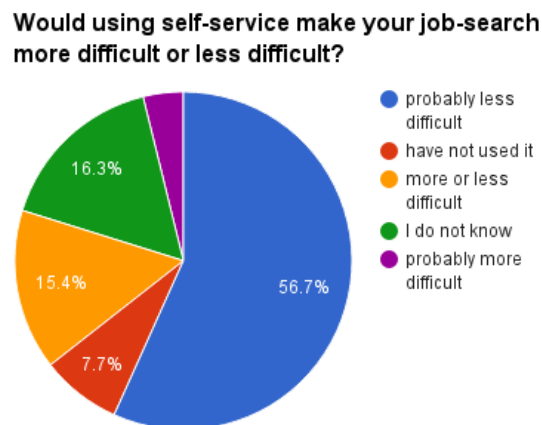


Figure 14. Assessment about the difficulty of job-search while using self-service

Most clients think that using self-service makes their job search probably less difficult. Approximately 30% of the clients can not tell what impact it has on their job-search. Only 3,8% of clients think that self-service makes their job-search more difficult.

5.3.3 Web questionnaire for clients

Client survey among self-service users was also carried out. It was possible to answer the questionnaire (see APPENDIX 3) from 8th April until 30th April 2016 via self-service by clicking on the link (after logging in). That means all of the respondents were the actual users of EUIF's self-service. 100 clients filled web questionnaires during that time (8 of them did it in Russian).

Gender of the clients responded divided as follows: 59% female and 41% male. The age groups of the respondents were relatively equal – 27% were up to 29 years old, 28% were 30-39 years old, 22% were 50-59, 18% were 40-49 years old and 5% were 60 years old or more. Most of the respondents had been EUIF's clients less than 6 months (63%), 23% had been clients 6-11 months and 14% had been EUIF's clients more that 12 months.

Clients were asked to assess their competence to use EUIF self-service portal. 76% of clients found that they are competent enough, 21% found themselves more or less competent and 3% of the respondents said that they do not have competence for that at all.

Next question tried to find out how clients found EUIF's self-service portal. 77% answered that they found it through web search, 18% were guided there by their consultant and 3% said that friend recommended EUIF's self-service to them. 5% chose "other" and they either knew it already or they read an article about it.

Clients were asked about their activities in self-service and following answers were given:

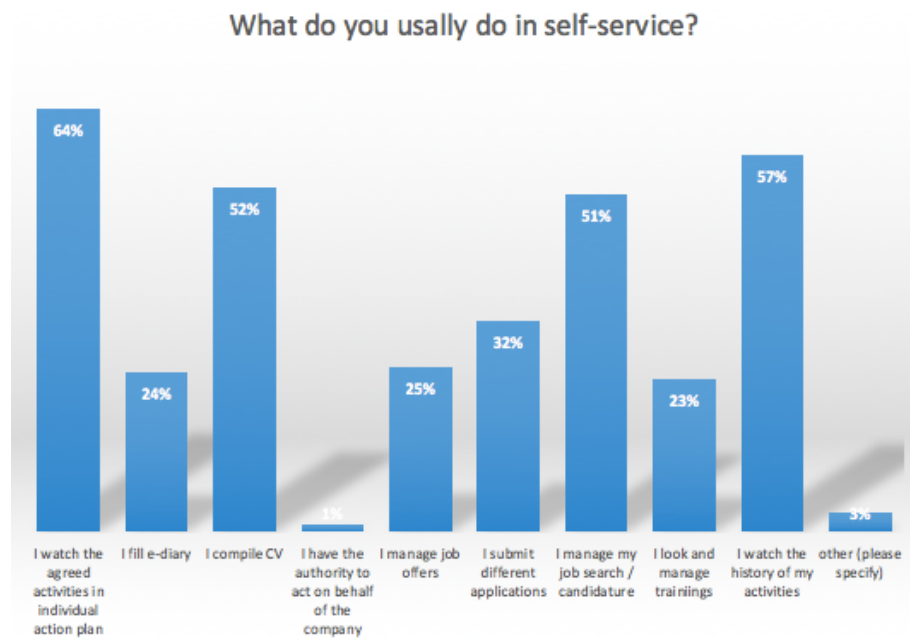


Figure 15. The actions clients usually perform in self-service

Most of the clients watch the agreed activities in individual action plan, compile CVs, manage their job search and watch the history of their actions. Almost equally were mentioned filling e-diary, managing job offers and submission of applications. Only 1% of the respondents said that they have authority to act behalf of the company and 3% said “other”, but did not specify that.

Next were clients asked about the usability of self-service. Answers to the question distributed as follows:

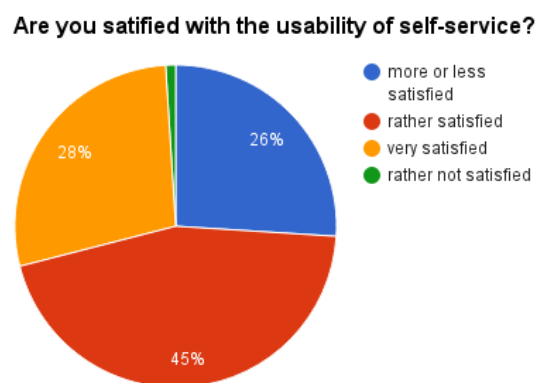


Figure 16. Satisfaction with the usability of self-service

Very satisfied were 28% of clients, rather satisfied were 45% of the clients and more or less satisfied were 26% of the clients. Only 1% of the respondents said that they are rather not satisfied with self-service's usability.

Similar question was asked about the possibilities in self-service. The answers are displayed on following diagram:

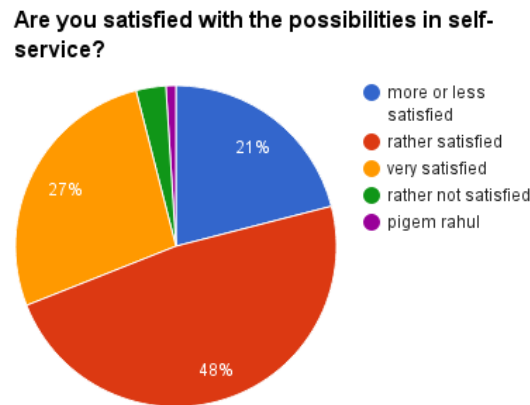


Figure 17. Satisfaction with the possibilities in self-service

As diagram shows, almost half of the clients are rather satisfied. 27% are very satisfied, 21% are more or less satisfied and only 3% were rather not satisfied with the possibilities in self-service.

Then two questions were asked to get a clearer understanding about what clients like and what not. 53 clients responded to the question “what do you like about self-service portal”. Lots of clients (21) brought out EUIF’s self-service’s simplicity and good usability (for them it was clear and comfortable to use it). Several clients (9) wrote that they like everything about it. Several clients (8) brought out that they like the abundance of the information. Clients (4) appreciate the possibility of submitting applications. They also liked that it is possible to check the history of their activities and agreed activities/deadlines. Also conducting CVs and looking and applying for jobs with them. Some of the clients brought out that self-service saved their time and it reduced queues in branches. One client wrote that he/she was very pleased while got the opportunity to report about job search through self-service and hopes to get that opportunity again because he/she lives in “e-Estonia”.

The question “what do you do not like about self-service” was asked. 42 clients responded to that question and 10 of them wrote that they actually like everything. Others found that self-service’s

usability and design is not good (14), several clients brought out that there should be a possibility to log in with bank codes or with username and password (6). Mentioned were also that there could be more functionalities, that the web page is slow, that initial registration duplicates the meeting with the consultant which is compulsory anyway and creating CV is not logical. One client wrote that he/she do not like that all the information that is in Estonian is not translated to Russian. Two clients responded that self-service should have a possibility for video-counselling with consultants.

Next the question about channel preference was asked. The answers distributed as follows: 12% of clients found that they prefer office and face-to-face communication, 34% of the clients prefer self-service and web/telephone communication and 54% said that both are suitable.

To get a better understanding whether clients would use self-service more if there would be more possibilities, question about it was asked. Answers distributed as follows:

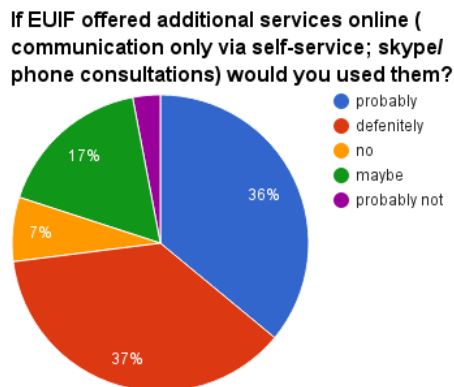


Figure 18. Distribution of the possible usage of additional online services

As seen from the diagram, most of the clients would definitely or probably use new possibilities. 17% thinks they may use them, 3% says out that they probably would not use them and 7% of the clients would not use them.

Literature review and case study brought out a lot of opportunities that different countries have already implemented online. To get the understanding, whether EUIF’s employees also see the need for them, a question about following opportunities was asked:

1. Possibility to report about job-search progress only through self-service channel on the

first 3 months (during that time visiting the office is not required and skype/phone are used for communication).

2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication.
3. Counselling via phone/skype as a call.
4. Counselling via e-mail.
5. Individual video-counselling (for example via skype).
6. Individual counselling via Chat.
7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat).
8. Active use of facebook (post, answering to personal messages, offers).
9. Video courses, motivational videos, helpful tips and tricks.
10. Job interview simulation (practicing for a job interview).
11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen.
12. Fast exchange of documents and receiving feedback via self-service.

The outcomes of the question were following:



Figure 19. Distribution of solutions clients would like to try

Diagram shows that clients would like to have the possibility to choose the communication channel themselves. They also like the opportunities to communicate and consult via e-mail. Noteworthy is also the option to report your job-search progress only through self-service channel on the first 3 months. The least wanted is group video-counselling.

Final question was about the usefulness of self-service in job-search. The answers distributed as follows:

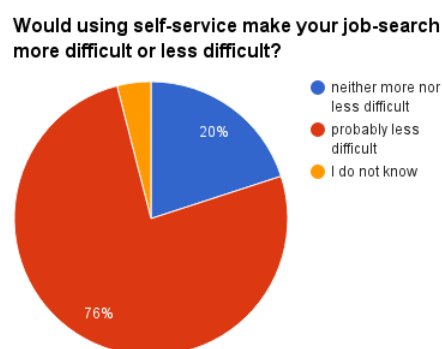


Figure 20. Assessment about the difficulty of job-search while using self-service

As seen from the diagram, most clients found that using self-service makes their job search probably less difficult. Nobody answered that it makes their job search rather difficult or more

difficult. Clients also used the opportunity to leave comments and propositions. Three clients wrote that all the communication should be virtual and they would like to see more services online. One client wrote that video-counselling that requires private space and equipment for that should not be made compulsory, because clients' economic opportunities, habits and willingness to learn new things is different.

6. Discussion

The compiled work described the current situation with EUIF's self-service portal. Theoretical background demonstrated how individual service orientation and organisational service orientation are related to the topic. Literature review summarized main discussion topics related to multi-channel approach and blended service delivery and gave examples of other European countries' developments with PES online service delivery. In depth was researched information about the Netherlands' achievements related to online service delivery. To get a better understanding of what could be improved in Estonia, a research among EUIF's clients and employees was also carried out. The motivation to conduct the work came from the fact that author of the work is currently working in EUIF and needs the data and analysis for helping to plan next developments regarding EUIF's self-service.

Current chapter analyses the results of action design research (case study research and qualitative research). Discussion gives answers to asked research questions by concentrating on comparison of Estonian case and the Netherlands' case, also on the main findings from surveys. As mentioned in the beginning, the thesis focuses on self-service solutions for private clients. Main research question was how to improve the existing self-service process of employment mediation for Estonian Unemployment Insurance Fund. First sub-question aimed to find out which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia. Second and third sub-questions asked how to improve the existing self-service process of employment mediation from clients' and from employees' perspective. After answering the posed research questions, recommendations will be offered for the future analysis.

6.1 Estonian case compared with other EU countries' self-service solutions

Since there is currently little information about how effective is EUIF's self-service solution and whether and what could be improved in Estonian self-service process of employment mediation, there was a strong need for analysis. Literature review offered the bigger picture about overall developments and helped answer the first sub-question. It gave an extensive insight to existing solutions in the public employment services in European countries and helped to find out which

advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia.

It is clear that digital channels are being increasingly adopted by almost all countries including Estonia. Public employment organizations are trying to find effective, efficient and satisfying ways to offer services and deliver PES services via digital channels to increase the accessibility of the service and enhance PES capacity to deliver services to a larger number of clients. These are also the objectives of EUIF. There is a clear trend among PES in experimenting with moving some of the basic control and counselling functions of caseworkers online for services where the information content can be structured. Public employment services are increasingly using digital channels and the e-services provided include for example: online registration, preparing CV and automated job-matching, online skill enhancement videos and online seminars, job-interview simulation, guidance chats, webinars, preparation and follow-up of individual action plans, reporting of job applications, e-account where clients' activities are recorded, online skill self-assessment and skill development tools and suggestions for training courses based on these assessments, co-browsing, advanced profiling through technology, self-help tools and social media usage.

Overall conclusions about Estonian possibilities compared to other countries seem to be quite good – Estonia has a lot of services already online, but there is not possible to do all the actions via self-service. Estonia could add value to the homepage and self-service by introducing additional advanced opportunities. For example, add more online skill enhancement videos and online seminars, job-interview simulation, guidance chats, webinars, preparation and follow-up of individual action plans, online skill self-assessment and skill development tools and suggestions for training courses based on these assessments, co-browsing, advanced profiling through technology, different self-help tools and social media usage. These possibilities would enrich EUIF's self-service portal and would be helpful in case of independent online job-search.

A handful of PES also monitor their customers' journey through their digital services, identifying points where customers spend substantial time. Although Estonia has some tools for that, there is no constant and wide monitoring, which would be also useful. In conclusion, above-mentioned possibilities would be valuable developments because clients would have the possibilities to get additional information which can not be received within the short consultation in EUIF's branch once a month.

While exploring other countries' more recent developments, it seems that there is no clear direction towards which all the countries move together and the main question is how to blend service channels in order to increase PES effectiveness in service delivery. In case of most European countries there is currently no analysis about how effective, efficient and satisfying fully digital service delivery is compared to face-to-face service delivery and for understanding that additional analysis in Estonia should be carried out, especially in case of counselling as it is thought to be one of the most difficult areas to digitalize. However, different advanced online services add definitely value in case of those clients who are interested in trying self-service solutions. At the same time, legislative restrictions in Estonia must be also taken into account while deciding what could be improved in case of current EUIF's self-service solution. For some advanced online developments (for example first consultation and individual action-plan preparing online) the law needs to be changed and that sets obstacles for developing new advanced solutions.

6.2 Estonian case compared with The Netherland's case

As seen from the literature, the Netherlands stands out with its advanced online solutions and was therefore chosen for a case study. The Netherlands entire service delivery is mediated by technology (with little exceptions) and this decision was made because of budget cuts. The Netherlands' case study reveals, that the policy of the Netherlands' government on public employment services made clear that citizens and employers are called upon to take responsibility themselves in the labour market.

Registering and applying for benefits is done online. There are different tools for automation and initial profiling and evaluation interview will take place three months after registration. PES uses standardized action plan for the first three months (one for people with unemployment benefit and one for 'job changers') and first three months' clients receive online support. As the Netherlands has developed self-assessment tools, every three months' participants receive a self-assessment module to complete. The Netherlands PES advanced online tools are: self-help tool for indication on chances in job finding in relation to labour market, (self)help tool for assessment on personal aspects in relation to job seeking and the profiling tool to figure out why the jobseekers have not yet returned to work and which jobseekers need help to avoid falling into long term unemployment. PES also uses guidance chats and webinars.

Compared to the Netherlands, Estonia has also some of these solutions already online, but could implement for example standardized action-plan for the first three months, guidance chats, webinars and two advanced self-help tools and advanced profiling tool. Estonia should consider the introduction of advanced tools that help to profile and predict customer related aspects, because they are useful for clients, and consultants could also use the profiling information to help a jobseeker to overcome barriers. Guidance chats and webinars would be a great possibility to offer more customized services. Estonia should also constantly and thoroughly monitor clients' online behaviour. This would be useful already today and definitely in the future if additional online possibilities should be implemented.

As seen from the Netherlands' practice, 15% of the clients are not able to manage job search online. It should be taken into account that at least the same percentage will not probably do it in Estonia. In Estonia, the initial registration via self-service was 16%. As it is not compulsory to apply through self-service, the expected percentage can not probably be even on the same level as the Netherlands'. Still can be said that additional marketing should be made in Estonia to attract more clients to submit their applications through self-service, because this kind of data-based service is more time-saving when done online.

Still, certain services are even from the Netherlands's point of view better delivered by combining the e-channel with telephone or face-to-face channels (such as labour market activation and enforcement, in depth coaching or group training). That is because of shortcomings in the available technologies and architecture, and because blended services give (at this time) better results. Before shifting towards online service delivery, Estonia has to do its own observations and decisions which services should be offered digitally. First aim should be not to concentrate on reducing costs but to finding the main advantages that online service delivery offers and the right channel mix. For some clients the more in depth online solutions could be even more effective – they can have support constantly not only once a month during the consultation time. For others, face-to-face solutions are probably best.

Compared to Estonia, the Netherlands PES had little time to realize changes and the enforcement mechanism (law) ensured the quick implementation. Estonian case has shown that when there is no enforcement then probably the change towards online channels will be slower. Also, the Netherlands transformation to e-services required a complete adjustments of skills (through training) as employees were not used to the digital way of communicating or using digital components in face to face services (blended services). While thinking on implementing more

advanced solutions, Estonia should also consider starting from the employees' trainings (especially standardize how to assess clients' readiness to use self-service). As theoretical background showed, the perceptions and visions of the staff can be affected already at the organizational level. If clients feel that staff is supporting, encouraging and knows what to do and how to help, then they are more likely to accept the changes.

The Netherlands case study also brought out that PES employees and managers perceptions are important. This idea was also discussed in theoretical background's chapter. The acceptance of managers is crucial for the successful implementation of this kind of shift and all the wanted outcomes are more achievable when leadership is strong in the organization. While wishing to make changes in Estonian service delivery, managers should definitely be positively minded about that.

In conclusion, budget cuts in The Netherlands have resulted in a shift away from face-to-face service delivery to a primarily digital service delivery, but since there is no clear assessment whether the approach is the best solution, Estonia should carefully consider the application of their full approach. Especially is needed analysis about the initial consultation's efficiency compared to online contact and e-services. Despite that, the additional value different advanced online solutions would offer, is rather positive and these should be considered to develop, especially advanced self-help and profiling tools.

6.3 Findings from the questionnaires

There was no study about how to improve the existing self-service process of employment mediation from clients' and employees' perspective and therefore second and third research sub-questions asked how to improve the existing self-service process of employment mediation from clients' and from employees' perspective. That is crucial for developing even more customised innovative services. To study EUIF's customer's satisfaction and expectations and employees' attitudes and expectations three questionnaires were compiled.

EUIF's employees think that they are mostly informed about self-service possibilities and there are no strict opinions how often online services should be offered. The possibility is mostly offered to Estonians with good computer skills, but employees also said that they offer it to clients who have access to the portal (ID-card/mobile-ID), who can organise their job-search independently and who have motivation for that. At the same time, they assess customers'

readiness to use self-service rather low and found that small portion of clients are ready to use self-service.

All the clients who answered paper surveys, had visited EUIF's homepage. More than 60% of respondents normally uses ID-card or mobile-ID to log in to different web sites and even higher percentage has logged in to EUIF's self-service portal. This shows that more than half of the clients are probably capable for using EUIF's e-services and have expressed the interest also. Most of the clients find themselves competent enough to use self-service, which is a good indicator – more than 70% of self-service users and more than 50% of branch visitors found that they are competent enough to use self-service. As it differs from employees' opinion, it should be further investigated, do clients really overestimate themselves or EUIF's employees underestimate clients' skills. Based on only clients' opinion, most of the clients say that they would like to use self-service. That is why further development of it should be considered. Sure is that all new things need support and clients are not used to online services at the beginning. If they have a wish to try, EUIF should consider to offer also sufficient support at the same time (for example support line or online chat support).

If employees have the opinion that clients are not ready to use self-service, there may be a need to simplify self-service portal current design to the level that clients can manage. The aspect came out from clients' questionnaires also. Client survey results revealed that clients are rather satisfied with self-service usability and possibilities in self-service, but several still found that self-service's usability and design could be better. They also brought out that logging in is difficult and could be easier. According to service design approach, this is one thing that should be improved. That done, maybe more clients find it helpful to use self-service while searching for job and more consultants will believe that clients could manage to use self-service.

The overall results from questionnaires show that employees are rather eager to offer self-service options and assess carefully every unique situation to find the best channel for client. With regard to the technical skills, they find themselves rather competent. From that can be concluded that EUIF's employees are rather individually service-oriented. Major opinion was that there are enough opportunities and clients do not use even the available ones. If there would be more services online, employees are not sure whether they will offer self-service more frequently to clients. That could be also because of the usability of current self-service. Seems like training and more involving staff in developing and testing would also help in getting a more positive

attitude to offer online services. As organisational service orientation approach revealed, trainings are very important while trying to make a change in the organisation.

Despite that, most of the clients wrote that they would definitely or probably use new possibilities. At the same time results also showed that clients do not have a clear preference about the communication channel and the possibility that they would choose one or another is not clear. Self-service users preferred self-service channel a little bit more and the percentage of clients who found both suitable was also higher in case of web survey responses. Analysis of client surveys shows that clients would mainly like to have the possibility to choose the communication channel themselves, which should be considered when taking into account service design approach. Several employees on the other hand found that face-to-face counselling is often more influential. Some found that it could be possible to gain efficiency with online services, but it is hard to assess during the initial meeting which client is independent enough to use self-service.

Clients would like the opportunities to communicate and consult rather via e-mail and telephone, use chat and exchange documents through self-service. Also preferred were job interview simulation, video courses, motivational videos, helpful tips and tricks and to report job-search progress only through self-service channel on the first 3 months. Video-counselling was not that popular. The plus of online communication by chat and e-mails is the aspect that clients can think through their questions and later oversee the answers while in case of short face-to-face counselling they may not be able to remember everything. In case of problems, there remains always a possibility to ask video-counselling or come to face-to-face counselling if that appears to be inefficient. EUIF should compare the negative and positive aspects of offering more services by writing, because it seems that a lot of clients would like to have support exactly that way.

Answers show that employees would mainly like to see the possibilities to exchange documents in self-service, have job interview simulation, have video courses, motivational videos, helpful tips and tricks and possibility to report your job-search progress only through self-service channel first 3 months. Several employees think that more information and possibilities could be in Russian language, which was also brought out by clients.

Employees' opinion that their workload would not change with new online solutions stands out. Employees rather find that clients move to different channel but there is still the same work to

do. Most of the employees answered that work would be more technical and computer-centred. Some find it useful and more effective, but large proportion of respondents think that face-to-face communication is better, because it is clearer and motivates clients more.

Most clients think that using self-service makes their job search probably less difficult which is a great indicator to develop or improve EUIF's self-service portal. The employees also found that clients would be the main beneficiaries. Lots of clients brought out EUIF's self-service's simplicity and good usability. Many clients brought out that they like the abundance of the information, simplicity, clarity and job and training related opportunities. Several clients wrote that they like everything about it and again when question about what they do not like was asked, several wrote that they actually like everything. That shows that clients would probably use self-service, however there is still a need for better usability and user support as mentioned before.

In conclusion, self-service may not be the preferred channel even if it would have more possibilities in it and seems like a lot of clients also value face-to-face communication with their consultant. The importance of face-to-face communication is also brought out by employees. It is not quite clear whether clients would make the best choice for finding a job as fast as possible when they have the possibility to choose communication channel themselves. However, it is important that clients have the desire to use online possibilities and considering that more and more people are skilled to use computers in the future, more innovative developments could be useful and needed from clients' perspective.

6.4 Summary of the results

Main research question of current thesis was how to improve the existing self-service process of employment mediation for Estonian Unemployment Insurance Fund. To answer it, three sub-questions were asked. First sub-question aimed to find out which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia. Second and third sub-questions ask how to improve the existing self-service process of employment mediation from clients' and from employees' perspective.

While exploring other countries' more recent developments, it seems that blended service delivery is the best approach in order to increase PES' effectiveness in service delivery. Estonia should carefully consider application of the Netherlands' full online service approach. For understanding whether some clients could be only served via digital channels, additional analysis

in Estonia should be carried out, especially in case of counselling as it is thought to be one of the most difficult areas to digitalize. However, different advanced online services (especially the Netherlands' advanced self-help and profiling tools) add definitely value to those who are interested in trying self-service solutions. Still, legislative restrictions in Estonia must be also taken into account while deciding what could be improved in case of current EUIF's self-service solution.

Questionnaires revealed that self-service may not be the preferred channel by clients even if it would have more possibilities in it and clients would like to choose the service channel themselves. Seems like a lot of clients also value face-to-face communication with their consultant. At the same time clients feel themselves rather competent to use self-service and most of the clients wrote that they would definitely or probably use new possibilities. EUIF should compare the negative and positive aspects of offering more services by writing, because it seems that a lot of clients would like to have support exactly that way. Clients would like to exchange documents through self-service, have job interview simulation, video courses, motivational videos, helpful tips and tricks and to report job-search progress only through self-service channel on the first 3 months. These are the options what to consider while designing customer-oriented services in EUIF and as it came out, freedom of choice is what clients would value.

Client survey results also revealed that clients are rather satisfied with self-service usability and possibilities in self-service, but several still found that self-service's usability and design could be better. That is also mentioned by employees. Design and user-friendly portal is therefore important target for EUIF in the future.

Employees at the same time do not believe that most of the clients are ready for online services, but would be open to offer the advanced new solutions. That shows the need for training the clients and staff and also to improving the current usability and design of self-service. As employees seem to be rather individually service-oriented, training should give a good result in managing the change. Answers revealed that employees would mainly like to see the possibilities to exchange documents in self-service, have job interview simulation, have video courses, motivational videos, helpful tips and tricks and possibility to report your job-search progress only through self-service channel on first 3 months. The same possibilities were listed by clients, which means that their expectations are quite the same.

At the same time importance of face-to-face communication is also brought out by employees. Overall analysis has also shown that the decision to offer public employment services via different channels has to be analysed thoroughly because of many concerns. Key issues are the digital skills of customers, changes in organisational culture, resources and staff, IT and security issues, user-friendliness and change of working habits of both staff and customers. Service orientation approach showed what should be considered while trying to change service delivery channels so that it really is more effective, efficient and satisfying for everybody. Organizational and individual service orientation are important approaches that need to be considered while broadening possibilities in self-service portal.

For now, seems like blended service delivery is also the wish of Estonian clients and EUIF should take it into account and try to improve the current solution and at the same time consider implementing the new possibilities also. It is clear that the emphasis should not be only on face-to-face services. Piloting new solutions, user involvement and monitoring of online service usage should be used to improve self-service portal in implementing new possibilities. According to current research seems that new solutions are rather wanted, but they should not be mandatory to use.

7. Conclusion

The objective of this paper was to examine the developments of Estonian labour market services in the context of digital service delivery and compare EUIF's online services with other countries' good practices to find out what is different and which advanced practices may be missing in Estonia. Also to get an idea what is the attitude of EUIF's clients and employees towards current solutions in EUIF's self-service portal and which advanced solutions would they like to see in self-service portal.

The ultimate goal was to study and analyse whether and what could be improved in Estonian self-service process of employment mediation and service delivery so that it would satisfy both the clients and the organization's needs. The outcome of the research supposed to be a better understanding if current online service delivery supports the organization's vision to offer the best employment services and ensure the availability and quality of services. As the research paper aimed to find ways for improving EUIF's online service delivery, it is a valuable input for EUIF's further development plans and possible future visions.

The main research question of the study was how to improve the existing self-service process of employment mediation for EUIF. To answer that, three sub-questions were asked. First sub-question aimed to find out which advanced employment mediation self-service solutions are offered in other countries that could be implemented in Estonia. Second and third sub-questions asked how to improve the existing self-service process of employment mediation from clients' and from employees' perspective.

The chosen methodology of this paper was action design research which consist of case study research and qualitative research. As the author was currently working in the organization, action design research was used to answer the research question.

Blended service delivery seems to be the best approach in order to increase PES' effectiveness in service delivery, but Estonia should carefully consider application of the Netherlands' almost full online service approach. For understanding whether some clients could be only served via digital channels, additional analysis in Estonia should be carried out, especially in case of counselling as

it is thought to be one of the most difficult areas to digitalize. However, different advanced online services (especially the Netherlands' advanced self-help and profiling tools) would add definitely value to EUIF's self-service portal.

Questionnaires revealed that self-service may not be the preferred channel by clients even if it has more possibilities in it and clients would like to choose the service channel themselves. Appears that blended service delivery is also a wish of the clients and EUIF should take it into account. EUIF should try to improve the current online solutions and consider implementing the new ones also. According to current research seems that new solutions are rather wanted, but they should not be mandatory to use.

Current thesis gave first general overview of current situation in case of EUIF online services. Even though the general direction has been presented, further future studies are needed. For understanding whether some clients could be only served via digital channels, additional analysis should be carried out (especially in case of counselling and first consultation). There may also occur the need for analysis about the legal side of the topic. As thesis did not focus on employers, the opinion of this clients' segment should be definitely researched. Since this year, EUIF's private client segment will also include people with decreased working ability, research among them will be necessary in the future.

References

- 1) Caemmerer, B. and Wilson, A. (2011) *An exploration of the service orientation discrepancy phenomenon in the public sector*. *Services Industries Journal*, vol 31, no. 3, pp. 355-370. Retrieved February 28, 2016 from <http://www.tandfonline.com/doi/abs/10.1080/02642060802712806>
- 2) Cran, D. (1994) *Towards a validation of the service orientation construct*. *The Service Industries Journal*, 14(1): 34–44. [Taylor & Francis Online], [Web of Science ®], [CSA] Retrieved March 20, 2016 from <http://web.a.ebscohost.com/ehost/detail/detail?sid=7bbe1edc-9752-4a34-9d33-2e9b18e8716e%40sessionmgr4004&vid=0&hid=4109&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=6419515&db=bth>
- 3) Economic Research. Federal Reservebank of St. Louis. *Working Age Population: Aged 15-64: All Persons for Estonia*. 2014:Q4. Retrieved April 10, 2016 from <https://research.stlouisfed.org/fred2/series/LFWA64TTEEQ647N>
- 4) Edvardsson, B., and Enquist, B. (2002) *The IKEA Saga’: How Service Culture Drives Service Strategy*. *The Service Industries Journal*. Vol. 22, No 4, pp. 153-186. Retrieved March 28, 2016 from <http://web.b.ebscohost.com/ehost/detail/detail?sid=8a4f2888-1d79-45c6-8c36-9c5bd65e891c%40sessionmgr103&vid=0&hid=110&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=7513861&db=bth>
- 5) Edvardsson, B., Olsson, J. (1996) *Key concepts for new service development*. *The Service Industries Journal* 16, 140–164. Retrieved March 28, 2016 from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=b1752739-c32d-4266-9bad-febb922114de%40sessionmgr4005&vid=2&hid=4109>

- 6) Europe 2020. (2010) *A strategy for smart, sustainable and inclusive growth*. Communication from the Commission. Retrieved March 30, 2016 from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>
- 7) European Commission, PES Digitalised service delivery. Retrieved March 30, 2016 from <http://ec.europa.eu/social/main.jsp?catId=1163&intPageId=3451&langId=en>
- 8) European Commission (2011a) *Comparative Paper on Integrated Multi-Channelling*. Input to Peer Review Antwerp. Brussels. European Commission. Retrieved March 28, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?policyArea=&type=0&country=0&year=0&advSearchKey=prchannelling&mode=advancedSubmit&langId=en&orderBy=docOrder>
- 9) European Commission (2011b) *New developments, good practices and lessons learnt*. One year of the PES to PES Dialogue: Discussions at the Dissemination Conference. Ágota Scharle Retrieved March 30, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?policyArea=&type=0&country=0&year=0&advSearchKey=lessonsdevconf&mode=advancedSubmit&langId=en&orderBy=docOrder>
- 10) European Commission (2011c) *Multi-channel management: Recent developments in PES and e-government*. Analytical paper. Dr. Willem Pieterse & Zachary Johnson. Retrieved March 30, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=20&langId=en&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=multi-channel>
- 11) European Commission (2011d) *Support for transfer visit: PES and E-services Amsterdam, 19 September 2011*. Ellen Murray. Retrieved March 30, 2016 from <http://ec.europa.eu/social/main.jsp?catId=1163&intPageId=3451&langId=en>
- 12) European Commission (2011e) *Peer Country Comments Paper. Input into Peer Review on Integrated multi-channelling*. UWV WERKbedrijf, Netherlands. Retrieved April 10, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=10&langId=en&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=multi-channel>
- 13) European Commission (2014a) *Blended service delivery for jobseekers PES to PES Dialogue Peer Review. Executive Summary*. Amsterdam, Netherlands. Pieterse W.

- Retrieved March 20, 2016 from:
<http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=20&langId=en&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=PESblendedservicedelivery>
- 14) European Commission (2014b) *Blended service delivery for jobseekers*. Peer Review Comparative Paper. PES to PES Dialogue. Pieterse W. Retrieved March 28, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=20&langId=et&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=blended>
- 15) European Commission (2014c) *Blended service delivery for jobseekers*. Peer Review Host Country Paper, Brussels. Ágota Scharle, Tina Weber and Isabelle Puchwein Roberts. Retrieved March 28, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=30&langId=et&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=blended%20toolkit>
- 16) European Commission (2014d) *Results from the fourth year of the PES to PES Dialogue programme*. PES to PES Dialogue Report 2014, Brussels. Roger Sumpton, Isabelle Puchwein-Roberts and Helen Metcalfe. Retrieved March 28, 2016 from <http://ec.europa.eu/social/main.jsp?catId=1163&intPageId=3451&langId=en>
- 17) European Commission (2014e) *Estonia Peer Country Paper Blended service delivery for jobseekers*. Input into Peer Review on Integrated multi-channelling. Retrieved March 30, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?advSearchKey=pesmultichannelling&mode=advancedSubmit&langId=fr&search=Search&orderBy=docOrder>
- 18) European Commission (2014f), *Blended service delivery for jobseekers*. Peer Review Host Country Paper, Brussels. Estonian Unemployment Insurance Fund, Estonia. Retrieved March 30, 2016 from <http://ec.europa.eu/social/main.jsp?catId=101&langId=et&newsId=2075&moreDocuments=yes&tableName=news>
- 19) European Commission (2014g), *Blended service delivery for jobseekers*. Peer Review Comparative Paper, Brussels, Author: Willem Pieterse. Retrieved April 2, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=20&langId=et&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=blended%20comparative>
- 20) European Commission (2014g) *Co-Browsing and Recruitment Meetings Online*. Study

- Visit to the Swedish PES (Arbetsförmedlingen). Follow-up to the Peer Review: Blended Service Delivery for Jobseekers, Amsterdam, The Netherlands, 5-6 June 2014. March 30, 2016 from <http://ec.europa.eu/social/main.jsp?catId=1163&intPageId=3451&langId=en>
- 21) European Commission (2014h) *Host PES Paper. Peer Review 'Blended service delivery for jobseekers' Netherlands, June 2014*. UWV Werkbedrijf, the Netherlands. Retrieved April 10, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?pager.offset=20&langId=fr&mode=advancedSubmit&year=0&country=0&type=0&advSearchKey=blended%20serv>
- 22) European Commission (2015) *Effective E-Services: Recommendations to Employment Services*. Partnership between Employment Services (PARES). Strategic Dialogue 2015. Retrieved March 20, 2016 from <http://ec.europa.eu/social/main.jsp?catId=991>
- 23) European Commission (2015b) Identification of latest trends and current developments in methods to profile jobseekers in European public employment services : final report. Barnes, Sally-Anne, Wright, Sally, Irving, Pat and Deganis, Isabelle. Retrieved April 10, 2016 from <http://wrap.warwick.ac.uk/70332/>
- 24) Hogan, R., Hogan, J. and Busch, C. (1984) How to measure service orientation. *Journal of Applied Psychology*, 69(1): 167–174. Truby Achievements, *Service Orientation*. Retrieved March 28, 2016 from http://www.trubyachievements.com/service_orientation.html
- 25) Humanresources.about.com *What Is Human Resource Management?* Retrieved March 28, 2016 from http://humanresources.about.com/od/glossaryh/f/hr_management.htm
- 26) ILO, ilo.org, Employment Services. Retrieved March 30, 2016 from <http://www.ilo.org/skills/areas/employment-services/lang--en/index.htm>
- 27) ILO, ilo.org, Labour market policies and institutions. Retrieved March 30, 2016 from <http://www.ilo.org/empelm/areas/labour-market-policies-and-institutions/lang--en/index.htm>
- 28) Maria Åkesson, Per Skålén, Bo Edvardsson, (2008) *E-government and service orientation: gaps between theory and practice*. *International Journal of Public Sector Management*, Vol. 21 Iss: 1, pp.74 – 92 . Retrieved March 28, 2016 from <http://www.emeraldinsight.com/doi/full/10.1108/09513550810846122>

- 29) OECD, oecd.org, Active Labour Market Policies and activation strategies. Retrieved March 30, 2016 from <http://www.oecd.org/employment/activelabourmarketpoliciesandactivationstrategies.htm>
- 30) OECD, IDB and WAPES (2015a) The World of Public Employment Services: Challenges, capacity and outlook for public employment services in the new world of work. IDB, Washington, D.C. Retrieved March 30, 2016 from <http://dx.doi.org/10.1787/9789264251854-en>
- 31) OECD, IDB and WAPES (2015b) The World of Public Employment Services: Challenges, capacity and outlook for public employment services in the new world of work. Executive summary. Retrieved March 30, 2016 from <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=40108544>
- 32) Palk.ee (2010) *Töötukassa rügab parema töövahenduskeskkonna nimel*. Retrieved April 2, 2016 from <http://www.palk.ee/artikkel.php?uid=1599>)
- 33) Pedro Oliveira, Aleda V. Roth, (2012) *Service orientation: the derivation of underlying constructs and measures*. International Journal of Operations & Production Management, Vol. 32 Iss: 2, pp.156 – 190 Retrieved February 28, 2016 from <http://www.emeraldinsight.com/doi/full/10.1108/01443571211208614>
- 34) Pieterse, W. (2009) *Channel Choice. Citizens' Channel Behavior and Public Service Channel Strategy*. Thesis, University of Twente. ISBN 978-90-365-2807-8. Retrieved March 30, 2016 from: https://www.utwente.nl/ctit/cfes/docs/proefschriften/2009-Channel_Choice_Final_web.PDF
- 35) Postimees (2009) *56 saadiku häälte toel võttis riigikogu vastu seaduse, mis liidab tööturuameti töötukassaga*. Retrieved April 2, 2016 from <http://www.postimees.ee/75113/tooturuamet-sai-tootukassa-kulge-liidetud>)
- 36) Postimees (2011) *Esmaspäevast saab testida töötukassa iseteenindusportaali*. Retrieved April 2, 2016 from <http://majandus24.postimees.ee/380033/esmaspaevast-saab-testida-tootukassa-iseteenindusportaali>)
- 37) Riigikogu (2006) *Tööturuteenuste ja -toetuste seadus*. Seadus, RT I 2005, 54, 430. Retrieved April 2, 2016 from <https://www.riigiteataja.ee/akt/TTTS>
- 38) Saarte Hääl (2011) *Töötukassa avas iseteenindusportaali*. Retrieved April 2, 2016 from

- <http://www.saartehaal.ee/2011/02/01/tootukassa-avas-iseteenindusportaali/>
- 39) Schneider, B., & Bowen, D. (1985). *Employee and customer perceptions of service in banks: Replication and extension*. *Journal of Applied Psychology*, 70(3), 423–433. Retrieved February 28, 2016 from <http://www.jstor.org/stable/pdf/2392454.pdf>
- 40) Sein, Maung K.; Henfridsson, Ola; Purao, Sandeep; Rossi, Matti; and Lindgren, Rikard. (2011) *Action Design Research*. *MIS Quarterly*, (35: 1) pp.37-56 Retrieved April 10, 2016 from <http://misq.org/cat-articles/action-design-research.html>
- 41) Sultana, R. G and Watts A. G (2006) *Career Guidance in Public Employment Services Across Europe*. *International Journal for Educational and Vocational Guidance*, 2006, Volume 6, pp 29-46 Retrieved March 30, 2016 from <http://link.springer.com/article/10.1007/s10775-006-0001-5>
- 42) Tallinn.ee (2010) *Töötud saavad tööpakkumisi otse oma e-posti aadressile*. Retrieved April 2, 2016 from <http://www.tallinn.ee/est/Uudis-Tootud-saavad-toopakkumisi-otse-oma-e-posti-aadressile>
- 43) Töötukassa. (2009a) *Meelis Paavel: Uus infosüsteem võimaldab pühendada rohkem aega kliendile*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/meelis-paavel-uus-infosusteem-voimaldab-puhendada-rohkem-aega-kliendile>
- 44) Töötukassa (2009b) *Ettevõtetal on võimalik koondamishüvitist taotleda e-teenusena*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/ettevotetal-voimalik-koondamishuvitist-taotleda-e-teenusena>
- 45) Töötukassa. (2010a) *Urmas Visse: Tööturuamet oli täielik läbikukkumine* Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/urmas-visse-tooturuamet-oli-taielik-labikukkumine>
- 46) Töötukassa (2010b) *Töötukassa kõnekeskusel 15501 täitus esimene tegevusaasta*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/tootukassa-konekeskusel-15501-taitus-esimene-tegevusaasta>
- 47) Töötukassa (2011a) *EURES-nõustamine nüüd ka Skype-i teel*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/eures-noustamine-nuud-ka-skypei-teel>

- 48) Töötukassa (2011b) *Kadri Lühiste: Infosüsteemid peavad töötama töötukassa ja töötute heaks*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/kadri-luhiste-infosusteemid-peavad-tootama-tootukassa-ja-tootute-heaks>
- 49) Töötukassa (2011c) *Töötukassa iseteenindusportaali külastas esimesel kuul ligi 70 000 inimest*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/tootukassa-iseteenindusportaali-kulastas-esimesel-kuul-ligi-70-000-inimest>
- 50) Töötukassa (2012) *Tööotsingu nõustamine Skype-i teel*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/tootsingu-noustamine-skypeai-teel>
- 51) Töötukassa (2013) *Töötukassa tööpakkumised ka mobiiltelefonis*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/tootukassa-toopakkumised-ka-mobiiltelefonis>
- 52) Töötukassa (2014) *Muudatused töötukassa iseteeninduses ja töötuna registreerimisel*. Retrieved April 2, 2016 from <https://www.tootukassa.ee/uudised/muudatused-tootukassa-iseteeninduses-ja-tootuna-registreerimisel>
- 53) Töötukassa (2015) *Tööotsijate rahulolu töötukassa teenustega*. Veebiküsitlus + isetäidetavad paberanekedid. Retrieved April 2, 2016 from https://www.tootukassa.ee/sites/tootukassa.ee/files/tootukassa_tootsijate_rahulolu-uuringu_aruanne_2015.pdf
- 54) UNPAN (2014). *UN e-Government Survey 2014. E-Government for the Future We Want*. New York: UNPAN, p. 2 Retrieved February 20, 2016 from http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2014-Survey/E-Gov_Complete_Survey-2014.pdf
- 55) Vabariigi Valitsus (2002) *Eesti Töötukassa põhikiri*. Määrus, RT I 2001, 99, 64. Retrieved April 2, 2016 from <https://www.riigiteataja.ee/akt/102022012005>
- 56) Value for money (2014) Host Country Netherlands: (Aard-Jan Seppenwoolde and Manon Grimberg): Presentation on: 'Value for money – added value for jobseekers'. Retrieved April 10, 2016 from <http://ec.europa.eu/social/keyDocuments.jsp?advSearchKey=value+for+money&mode=advancedSubmit&langId=et&policyArea=&type=0&country=0&year=0>
- 57) Wieslaw Urban (2009) "Organizational service orientation and its role in service performance formation: evidence from Polish service industry", *Measuring Business*

Excellence, Vol. 13 Iss: 1, pp.72 – 81 Retrieved March 28, 2016 from <http://www.emeraldinsight.com/doi/full/10.1108/13683040910943063>

58) Lytle, R. S., Hom, P. W., & Mokwa, M. P. (1998) *SERV*OR: A managerial measure of organizational service-orientation*. *Journal of Retailing*, 74(4), 455-489. Retrieved March 28, 2016 from <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=98528462-bf1a-4e1d-927a-31ff2bc3f01e%40sessionmgr107&vid=1&hid=110>

59) World Bank (2016). *World Development Report 2016: Digital Dividends*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0671-1. License: Creative Commons Attribution CC BY 3.0 IGO, p. 13. Retrieved February 20, 2016 from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2_0/Rendered/PDF/World0developm0000digital0dividends.pdf

Appendix 1 – Paper questionnaire for clients

1.	Gender: a) female b) male
2.	Age: a) up to 20 b) 30-39 c) 40-49 d) 50-59 e) 60 or more
3.	How long have you been EUIF's client? a) less than 6 months b) 6-11 months c) 12 months or more
4.	When you log in to different web sites, do you normally use ID-card or mobile-ID? a) yes b) no
5.	Have you visited EUIF's homepage? a) yes b) no
6.	Have you logged in to EUIF's self-service? a) yes b) no
7.	How do you rate your competence to use EUIF's self-service portal? a) I am competent enough

	<ul style="list-style-type: none"> b) more or less competent c) I am not competent enough d) Have not used
8.	<p>Has your consultant offered you the possibility to report your job-search progress through self-service? (fill e-diary)?</p> <ul style="list-style-type: none"> a) yes b) no
9.	<p>If you have used self-service, how satisfied were you with it's usability?</p> <ul style="list-style-type: none"> a) very satisfied b) rather satisfied c) more of less satisfied d) rather not satisfied e) not satisfied f) have not used
10.	<p>If you have used self-service, how satisfied were you with it's possibilities?</p> <ul style="list-style-type: none"> a) very satisfied b) rather satisfied c) more of less satisfied d) rather not satisfied e) not satisfied f) have not used
	<p>In case you have visited self-service portal, please answer questions 11 and 12, otherwise turn to question nr 13.</p>
11.	<p>What do you like about self-service portal?</p>
12.	<p>What do you not like about self-service portal?</p>
13.	<p>Which channel of communication do you prefer?</p> <ul style="list-style-type: none"> a) office and face-to-face communication b) self-service and web/telephone communication

	c) both are suitable
14.	<p>If EUIF offered additional services online (communication only via self-service; skype/phone consultations) would you used them?</p> <p>a) definitely</p> <p>b) probably</p> <p>c) maybe</p> <p>d) probably not</p> <p>e) no</p>
15.	<p>Below is a list of services/opportunities of digital solutions that are in use in different EU countries. Please mark solutions you would like to try.</p> <ol style="list-style-type: none"> 1. Possibility to report about job-search progress only through self-service channel on the first 3 months (during that time visiting the office is not required and skype/phone are used for communication). 2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication. 3. Counselling via phone/skype as a call. 4. Counselling via e-mail. 5. Individual video-counselling (for example via skype). 6. Individual counselling via Chat. 7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat). 8. Active use of Facebook (post, answering to personal messages, offers). 9. Video courses, motivational videos, helpful tips and tricks. 10. Job interview simulation (practicing for a job interview). 11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen. 12. Fast exchange of documents and receiving feedback via self-service.
16.	<p>Would using self-service make your job-search more difficult or less difficult?</p> <p>a) probably less difficult</p> <p>b) more or less difficult</p> <p>c) probably more difficult</p>

	d) I do not know e) Have not used it
17.	Propositions/comments

Appendix 2 – Web questionnaire for clients

1.	Gender: a) female b) male
2.	Age: a) up to 20 b) 30-39 c) 40-49 d) 50-59 e) 60 or more
3.	How long have you been EUIF's client? a) less than 6 months b) 6-11 months c) 12 months or more
4.	How do you rate your competence to use Estonian Unemployment Insurance Fund's self-service portal? a) I am competent enough b) more or less competent c) I am not competent enough d) have not used
5.	How did you find Estonian Unemployment Insurance Fund's self-service portal? a) consultant guided me to self-service b) found it through web search c) friend recommended d) other (please specify)

6.	<p>What do you usually do in self-service?</p> <ul style="list-style-type: none"> a) I watch the agreed activities in individual action-plan b) I fill e-diary c) I compile CV d) I have the authority to act on the behalf of the company e) I manage job offers f) I submit different applications g) I manage my job-search/candidature h) I look and manage trainings i) I watch the history of my activities j) other (please specify)
7.	<p>Are you satisfied with the usability of self-service?</p> <ul style="list-style-type: none"> a) very satisfied b) rather satisfied c) more of less satisfied d) rather not satisfied e) not satisfied f) have not used
8.	<p>Are you satisfied with the possibilities in self-service?</p> <ul style="list-style-type: none"> a) very satisfied b) rather satisfied c) more of less satisfied d) rather not satisfied e) not satisfied f) have not used
9.	<p>What do you like about self-service portal?</p>
10.	<p>What do you do not like about self-service?</p>

11.	<p>Which channel of communication do you prefer?</p> <ul style="list-style-type: none"> a) office and face-to-face communication b) self-service and web/telephone communication c) both are suitable
12.	<p>If EUIF offered additional services online (communication only via self-service; skype/phone consultations) would you used them?</p> <ul style="list-style-type: none"> a) definitely b) probably c) maybe d) probably not e) no
13.	<p>Below is a list of services/opportunities of digital solutions that are in use in different EU countries. Please mark solutions you would like to try.</p> <ol style="list-style-type: none"> 1. Possibility to report about job-search progress only through self-service channel on the first 3 months (during that time visiting the office is not required and skype/phone are used for communication). 2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication. 3. Counselling via phone/skype as a call. 4. Counselling via e-mail. 5. Individual video-counselling (for example via skype). 6. Individual counselling via Chat. 7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat). 8. Active use of Facebook (post, answering to personal messages, offers). 9. Video courses, motivational videos, helpful tips and tricks. 10. Job interview simulation (practicing for a job interview). 11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen. 12. Fast exchange of documents and receiving feedback via self-service.
14.	<p>Would using self-service make your job-search more difficult or less difficult?</p>

	<ul style="list-style-type: none">a) probably less difficultb) more or less difficultc) probably more difficultd) I do not knowe) have not used it
15.	Propositions/comments
16.	Please leave your e-mail address, if you are willing to answer to additional questions.

Appendix 3 – Web questionnaire for employees

1.	<p>Please mark your position in EUIF:</p> <ul style="list-style-type: none">a) job mediation consultantb) case managerc) case manager IId) information specialiste) career consultantf) senior consultantg) career information specialisth) EURES consultanti) head of department/ office managerj) senior specialist/ head of servicek) other (please specify)
2.	<p>Age:</p> <ul style="list-style-type: none">a) up to 20b) 30-39c) 40-49d) 50-59e) 60 or more
3.	<p>How informed are you about the possibilities available in EUIF's self-service?</p> <ul style="list-style-type: none">a) well informedb) mostly informedc) more or less informedd) poorly informede) not informed
4.	<p>How often do you offer your clients the opportunity to report their job-search progress through self-service?</p> <ul style="list-style-type: none">a) several times a day

	<ul style="list-style-type: none"> b) once a day c) once a week d) few times a month e) once a month f) less than once a month g) do not offer at all (please specify)
5.	<p>Mark the customer segments to which you offer the opportunity to report their job-search progress through self-service?</p> <ul style="list-style-type: none"> 1. Younger customers with good computer skills who speak Estonian. 2. Older customers with good computer skills who speak Estonian. 3. Young customers with good computer skills who do not speak Estonian. 4. Older customers with good computer skills who do not speak Estonian. 5. Long-term unemployed. 6. Long-term job seekers. 7. Unemployed for a short time. 8. Job seeker for a short time. 9. All clients regardless of age, period of unemployment, language and computer skills. 10. Other (please specify).
6.	<p>How would you assess your current customer portfolio's readiness and willingness to use self-service?</p> <ul style="list-style-type: none"> a) all clients are ready b) most of the clients are ready c) approximately half of the clients are ready d) small portion of clients are ready e) clients should not use self-service
7.	<p>How do you rate the possibilities in self-service?</p> <ul style="list-style-type: none"> a) self-service has lots of possibilities b) self-service has enough possibilities

	<ul style="list-style-type: none"> c) hard to say d) self-service should have more possibilities e) self-service does not have enough possibilities
8.	<p>Should self-service have more possibilities? Please explain.</p> <ul style="list-style-type: none"> a) yes b) no
9.	<p>If additional online services were added to EUIF self-service (i.e consultations via skype/phone) would you offer the self-service opportunity to clients more frequently?</p> <ul style="list-style-type: none"> a) definitely b) probably c) maybe d) probably not e) definitely not
10.	<p>Below is a list of services/opportunities of digital solutions that are in use in different EU countries. Please mark solutions that could be offered to EUIF's clients.</p> <ol style="list-style-type: none"> 1. Possibility to report about job-search progress only through self-service channel on the first 3 months (during that time visiting the office is not required and skype/phone are used for communication). 2. It is possible to choose the communication channel (face-to-face or self-service) to register as unemployed and for further communication. 3. Counselling via phone/skype as a call. 4. Counselling via e-mail. 5. Individual video-counselling (for example via skype). 6. Individual counselling via Chat. 7. Group video-counselling (for example via skype where consultant speaks via video-chat and participants can Chat). 8. Active use of Facebook (post, answering to personal messages, offers). 9. Video courses, motivational videos, helpful tips and tricks. 10. Job interview simulation (practicing for a job interview). 11. Visual counselling, where consultant sees the same web-page that client sees and can guide client by drawing on the screen.

	Fast exchange of documents and receiving feedback via self-service.
11.	<p>How motivated are you to offer the solutions listed in the previous question to your clients? Please explain.</p> <ul style="list-style-type: none"> a) highly motivated b) rather motivated c) more or less motivated d) rather not motivated e) not motivated
12.	<p>How do you assess your technical skills to serve clients using the solutions listed in the question nr 10? Please explain.</p> <ul style="list-style-type: none"> a) I am competent enough b) rather competent c) more or less competent d) rather not competent e) not competent at all
13.	<p>Do you think that job-search process could be more independent for some client segments and services could be offered mostly online?</p> <ul style="list-style-type: none"> a) yes b) no
14.	<p>If you answered "yes" to the previous question, then which client segments could be served mostly via self-service?</p> <ol style="list-style-type: none"> 1. Younger customers with good computer skills who speak Estonian. 2. Older customers with good computer skills who speak Estonian. 3. Young customers with good computer skills who do not speak Estonian. 4. Older customers with good computer skills who do not speak Estonian. 5. Long-term unemployed. 6. Long-term job seekers. 7. Unemployed for a short time. 8. Job seeker for a short time. 9. All clients regardless of age, period of unemployment, language and computer skills.

	10. Other (please specify).
15.	<p>If additional online services were used to serve clients, how would your workload change? Please explain.</p> <ul style="list-style-type: none"> a) workload would lessen b) workload would not change c) workload would increase d) I do not know
16.	If additional online services were used to serve clients, how would your work tasks and nature of the work change?
17.	<p>If additional online services were added to EUIF's self-service, who do you think would benefit?</p> <ul style="list-style-type: none"> a) EUIF as organization b) consultants c) clients
18.	Propositions/comments