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Decreasing Public Sector Spending Through the Increment of E- Service Usage by Implementing Marketing in E-Governance

Example of the Road Administration

Master's Thesis

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AUTHORS DECLARATION

The author confirms, the Master's thesis is written individually and any other person does not present the current thesis. All sources, citations, analysis, and other materials from other authors, which have been used, are cited and referred to.

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ABSTRACT

The purpose of this Master's thesis is to examine the necessity of marketing in the public sector, based on the case study of the Estonian Road Administration (ERA). A small state, like Estonia, has to provide effective services, but at the same time, the workforce is declining. It has led to a paradox - the state should be thinner, but at the same time, all services should be delivered to citizens effectively. One way to increase efficiency is creating public e-services. Public e-service thrives to meet the needs of the citizens and be a useful tool for the government to make governance cost-effective.

The main objectives of the thesis is to examine ERA's e-services, their development, promotion strategies and their e-service usage. This paper gives an overview of ERA's marketing activities carried out from January 2014 to March 2016, marketing influence on ERA's e-service usage percentage and the visitation numbers of ERA's bureaus. ERA's case study provided a valuable viewpoint, which could be interpreted into other public institutions or even other countries' context, whose goal is to develop their e-services and promote them among citizens. The positive correlation between those three factors result in decrement in the administrative costs, as citizens visit ERA's bureaus less. This is possible due to customer oriented marketing by the public sector.

The thesis is written in English, contains 103 pages and 29 789 words. From the current thesis, 7 chapters, 5 figures, 3 tables can be found. In the appendix, 4 graphs and one table can be found.

KEYWORDS: public sector marketing, marketing, private sector, public sector, services, e-services, e-service marketing, Estonian Road Administration

ANNOTATSIOON (IN ESTONIAN)

Käesoleva magistritöö eesmärk on uurida avaliku sektori turunduse vajalikkust, põhinedes Eesti Maanteeameti kaasusele. Riigi ülesanne on pakkuda kodanikele kvaliteetseid riigiteenuseid, kuid samal ajal on töäjõud avalikus sektoris kulude kärpimise eesmärgiga vähenemas. Nimetatud tegevus on viinud aga paradoksini, kus avaliku sektori osakaal peaks vähenema, samal ajal kui kõik avaliku sektori teenused peaksid kodanikeni jõudma sama efektiivselt. Üks võimalus efektiivsuse suurendamiseks on luua avaliku sektori e-teenused, mis kiirelt inimeste vajadusteni jõuaksid. E-teenuseid võib nimetada ka riigi käepikenduseks suhtlemaks kodanikega ning pakkumaks neile häid ning mugavaid lahendusi.

Uurimustöö peamine eesmärk on uurida Maanteeameti e-teenuseid, nende arengut, kasutatavust, turunduslike tegevusi ning populaarsust. Uurimus annab ülevaate Maanteeameti turunduslikest tegevustest, mis on tehtud alates 2014. aasta jaanuarist kuni 2016. aasta märtsini; turunduse mõjust e-teenuste kasutatavuse osakaalule ja Maanteeameti büroode külastatavusele. Maanteeameti kaasus annab väärtuslikke seisukohti, mida võib tõlgendada ka teiste avalike institutsioonide või riikide konteksti, eesmärgiga arendada e-teenuseid ning turundada neid kodanike seas. Uurimusest on selgunud, et kahe teguri, turunduse implementeerimise ja e-teenuste kasutatavuse suurenemise koosmõju on vähendanud büroode külastuste arvu, mis omakorda väljendub administratiivsete kulutuste vähendamises pikemas perspektiivis. See on võimalik just tänu kliendile suunatud avaliku sektori turundusele. Sellest kaasusest lähtuvalt võib kokku võtta, et avaliku sektori turundus on väga vajalik, vähendamaks avaliku sektori kulutusi pikemas perspektiivis.

Magistritöö on kirjutatud inglise keeles, sisaldab 103 lehekülge, 29 789 sõna, 7 peatükki, 5 graafikut, 3 tabelit. Lisades leiab 4 graafikut ning ühe tabeli.

Võtmesõnad: avaliku sektori turunduse, turunduse, avalik sector, erasektor, teenus, e-teenus, e-teenuste turunduse, Eesti Maanteeamet

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ABBREVIATIONS AND CONCEPTS

E-service	An effort or performance that is delivered to users by information technology
ICT	Information and communications technology
E-governance	The use of information and communication technology, in order to deliver governmental services to citizens, businesses, institutions, organizations etc.
Service design	Service design is the design of the overall experience of a service as well as the design of the process and strategy to provide that service

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INTRODUCTION

Estonia is famous for being successful in e-government. Estonian e-services have gotten positive feedback throughout the whole world. In addition, Estonia's information-society developments are among the leading Information and Communication Technology countries and the European Union. (Kalvet 2012, 2) Technology is changing rapidly, which means the services have to be adapted quickly and developed them even further. Users' expectations do not stand in one position. Users want to get more, especially in today's world full of technology. Technology does not change users' behaviour every day, but it does have a long-term effect on customers' needs and actions. Changes in technological world take place around five to seven years. (Simson 2016) Today's users do not wait for different e-service functionalities, because functionalities are a hygiene factor for them. Users only want few simple things from a perfect e-service — an e-service, which is quick and does not take much time. For that, e-services have to be extremely easy to use. At the moment, majority of services are used traditionally. For instance, going into Estonian Road Administration (ERA) bureau will take approximately three hours of a customer's time (driving into bureau plus service delivery). By using e-services, the time for the user will decrease strongly. Moreover, if a public sector organization could create an online version of a service, it can decrease time for the public official and save administrative costs. Overall, this will decrease public sector spending in the long run. Public sector officials can use time more efficiently and offer better services.

The public sector employment plays an important role in Estonia's economy. Estonia has an aging society and declining workforce, which puts the country in a difficult position. (Sarapuu 2014) A small state has to provide effective services to meet the citizen's requirements, on the same level as big countries do. (*Ibid*) This leads to a paradox, where on the one hand, the state should be thinner and the bureaucracy should be decreased, but on the other hand, all services have to be delivered to the citizens effectively. One of the solutions for this problem is to develop e-services and decrease the workload of public institution bureaus and offices. Nevertheless, even if a state has the necessary infrastructure for developing e-services, how a public institution can be sure, the citizens will start using new e-services, instead visiting the public institution offices, which they are already accustomed to. There has to be found a trigger

for citizens to use new e-services. One of the triggers can be marketing, which informs citizens about new technologies and possibilities.

This current research will take a closer look into Estonian Road Administrations case study, which offers an overview, how ERA has developed their e-services, informed citizens and increased the e-service usage percentage from all ERA's services. All necessary information is based on the ERA's case study, which includes ERA's statistics and available information. The aim of this study is to find out, if there is a correlation between public sector e-service marketing, the growth in the usage of e-services and the decrement in number of visits to ERA's offices. In addition, it gives an overview of Estonia's experience in an e-service development field. Moreover, ERA's functionalities, history and its developments will be described.

To get a better understanding about the phenomenon of e-services and their success, it is necessary to identify what e-service means. Furthermore, if the government would suggest citizens to use new e-services, instead of going to public offices or bureaus, then how should citizens know about new solutions? In this research public sector marketing is being analyzed and debated, is it necessary to market public e-services? In addition, this paper will take a closer look into theoretical concepts, such as socio- technical system approach, which helps to understand the interaction between people and technology. Moreover, e-service concept will be characterized. A concept 'e-service' consists of two parts: the "e-" and the "service". The "e" stands for something done electronically. The "service" characterizes a process in which extra value is created for the user. In addition, the stages of e-governmental services will be compared with ERA's e-service development. Furthermore, service design approach and its necessity will be explained. Last, but not least, service marketing is viewed through service dominant logic approach.

Based on the analysis, concrete recommendations and proposals will be made for the future research. This current research will be a case study, based on ERA's information of how it is possible to increase the e-service usage, while decreasing administrative costs. ERA's case study provides a valuable viewpoint, which can be interpreted into other public institutions or countries context, whose aim is to develop their e-services and promote them among citizens.

The main research questions in this Master's thesis is:

- How to decrease public sector spending through the increment of e-service usage by implementing marketing in e-governance.

To answer the main question, the following sub questions were asked:

- How does the e-service usage influence the visits to the ERA's bureaus?
- How does public sector marketing activities influence e-service usage in ERA's case?
- How does the growth in e-service usage decrease the number of ERA's office visits, which in turn decreases the lines in the bureaus and the human resource, who has to offer ERA's services and do administrative activities?

This current research provides one clear hypothesis, which is following:

- The public sector marketing activities influence ERA's e-service usage percentage positively and as a result, the bureaus visits decrease.

The current dissertation has six chapters, which are divided into subsections. In the first chapter, the historical background in e-service development in Estonia and the history of ERA are briefly overviewed. In the second chapter, the overview of the literature is given, based on the concept of e-services and their popularity in Estonia, public service marketing, and the developments in the Estonian Road Administration. The third section gives an overview of the theoretical concepts, which were chosen for this thesis — socio-technical approach, services and e-services, the stages of e-governmental services, the service design, and marketing approach (service dominant logic). Fourth section describes the methodology and the research questions in detail. The reasons and motivation behind the questions are explained. The case study form was chosen, because it provides a deeper understanding of the study. The mixed methods or Methodological Triangulation was selected, because it combines the quantitative and qualitative type of data. The fifth part is results chapter, where the correlation between e-service usage and the visits to bureaus will be looked; and the question, how does public sector marketing activities influence e-service usage, will be answered. This part contains case study research and the empirical data. In the last chapter, the author's analysis and discussion is based on the conclusion of analysis, in

order to answer the research questions and to prove the hypotheses. In addition, the future research and recommendations are proposed. To sum up, the conclusion part will summarize the paper and bring out the main findings.

1. CHAPTER I: HISTORICAL BACKGROUND

1.1 The Development of E-Services in Estonia

Internet usage has grown rapidly in Estonia since the early 90's, after regaining Independence from the Soviet Union. From there, Estonia has come a long way and currently is in the front row of e-service development. (Kalvet, et al 2013, 13; Anthes 2015, 18; Kitsing 2011, 1) Estonia is described as an e-service country. Although many other countries have been active and figure in the front row, Estonia has caught the reputation of a successful e-service developer. (Anthes 2015, 18; Kitsing 2011, 1; Kitsing 2008, 429) Public sector has created a vision, which is to offer fast e-services with good quality. The involvement of strategic foreign investors, Estonian fixed communication networks and the liberalization of the Estonian telecommunications market, were perhaps one of the most important steps, that Estonia made, which gave it strong fundamentals for the progress of information society. (Kalvet 2007, 11; Kitsing 2011, 1) In addition, the leading politicians supported some initiatives within the government, because their goal was to develop "thin" (minimal and efficient) state. (Kitsing 2008, 430) This means, developing e-services needs a political support.

The biggest challenge was to develop Estonian state information systems, which could make e-service provision possible. To benefit from the usage of ICT, requires major changes in public sector institution's workflows and communications. It needs cooperation between different information systems and various organizations. (Kitsing 2011, 8; Kalvet 2007) For example, the emergence of X-road or ID-card formed the foundation for all future e-service developments. Moreover, e-service development was possible in Estonia, because of free and open Internet access. Information society is mostly characterized by the development of Internet usage, which has grown rapidly over the years. For instance, in 2007, the Internet in Estonia was used by 65% of 6-74 years old citizens, which was above the European average. (Kalvet 2007)

Many studies have shown that Estonia has decreased significantly public sector service time and financial spendings by using e-services, although the investment cost of the development phase is yet unclear. (Kalvet, et al 2013, 7). Nevertheless, time is one of the key factors that can be saved by implementing e-services.

Institutions, which develop Estonian information systems, concentrate mostly on the user and services with an aim to link information systems and services into one logical system to provide e-services for citizens, institutions and organizations. (Ministry of Economic Affairs and Communications 2016) This one logical system is called X-Road, which is a data exchange layer. The state and local government organizations, third sector, private companies and citizens use it. X-Road allows e-services to function and work together. (Information System Authority 2016) According to the Information System Authority, there are five different characteristics, which a successful e-service has to cover. First, an e-service has to have sufficient technical interoperability, which means information systems integration has to be a top priority task for e-governance. Furthermore, system security has to be insured. In addition, an e-service has to be available for open standards that determine the feasibility of the investments. The world is changing rapidly, which makes flexibility a vital factor in innovation and in the ICT sector. Flexibility is a key factor in sustainability and success of the information system development. Finally, system has to meet user's satisfaction and needs. Statistics can change quickly, which means scaling has an important role for guaranteeing the effectiveness of the IT solution. (Ministry of Economic Affairs and Communications 2016) Statistics are generated from open data. Public sector gathers and stores it (economic, environmental, statistical, spatial information, etc). Open data has moved largely to digital form, which has to be machine readable to get the most out of it. The openness of the data will contribute to the transparency of governance, innovation and the economy boost. It will allow public and private sector to combine data and create new services to bring benefit. (*Ibid.*)

1.2 The History of Estonian Road Administration

Estonian Road Administration (ERA) is an Estonian government agency. ERA is engaged in road management, public transport, traffic safety and environmental safety of vehicles. (Estonian Road Administration 2013) Moreover, ERA's functions are maintaining the system of stationary automated speed cameras and implementing state policies and development plans in ERA's area of activity (Road Administration, The Republic of Estonia 2014). ERA's mission is to keep Estonian citizens with up to date road network (Estonian National Road Administration 2006).

Until 2000, the number of personnel working in ERA was 1740. After ERA's road management organizational reform, which started in the beginning of 2000, ERA decreased personnel by 1050 people. (Estonian National Road Administration 2004) Reform was completed in 2004, when it reached its lowest point, where almost 60% of personnel of the agencies that belonged under the administration of ERA were reduced. Number of workers increased slightly in 2005 (total 712 workers), because of work volume and tasks from the European Union (Estonia joined EU in 2004) had increased. (Estonian National Road Administration 2005, 9) In 2008, the personnel size stayed almost the same as in 2005 (Estonian National Road Administration 2008, 8). ERA had many changes in workload during that time, because of the accession into European Union. Moreover, ERA had structural changes in 2009, where Estonian Car Registry Centre was combined with the Estonian Road Administration. (Lamp 2009) The goal was to increase the efficiency of both agencies and to decrease operative costs. This period had economic difficulties, because of the recession. The combination of two state agencies provided citizens with one service provider and partner - the Estonian Road Administration. In 2010, ERA decided to combine all ERAs regional road authorities. Through interconnection ERA became one partner for the public service using citizen. (Road Administration 2010, 5)

In 2010, ERA updated their website, where they added a section, which helps to inform citizens about changed road traffic laws during the year. (Tamm 2011) Citizens are up to date with new information (changed laws and press release announcements). To make things even more convenient for citizens, they added some help materials to their updated website. This extra value decreased slowly the lines at bureaus or information call center. (Road Administration 2010, 60) In June 2010, ERA provided the Traffic Registry Office clients with automatic SMS or e-mail notifications through eesti.ee environment to inform about upcoming changes. This was one innovation, part of the new Traffic Registry information system, which was updated in April 2010. (Road Administration 2010, 74) Therefore, 2010 was a year of new changes – information system was updated and website provided more information to citizens.

2011 brought also innovations to the ERA website and e-service development. Now it was possible to make inquiries about vehicle registration data. This e-service was updated in 2014. More functions were available to search only knowing the registry number. (Velsker 2014) If the registry number is known, the mark, model, traffic restrictions, the time of initial registration

and verification of compliance with the technical requirements can be controlled. (Road Administration 2011, 1)

2013 was a ground-breaking year in personnel management. Workstations were reformed and unified. The number of ERA's employees were decreased to 516. (Road Administration 2013, 10) In e-service area, it was a year, when Peatus.ee was developed further. Peatus.ee is a public transport registry that can be used via laptop, mobile smartphone, tablet etc., with the aim to provide information about public transportation (graphs of transportation time, routs). (Karner 2014) In 2013, 1.18 million unique users visited this site and visitation grew the following years. ERA's goal was to develop this site further and make it more convenient for users, who visit it via smartphones. (Road Administration 2013, 66).

The development of client service, especially in e-services, was one of the 2013 priorities. According to ERA's strategy, e-service has to be developed and the usage of e-services has to increase. During 2013, the usage of ERAs e-services was humble – only 14% of clients made transactions electronically. At that point, e-services were too complex for the citizens. (Road Administration 2013, 81) 2013 was a year when the e-service platform development and UX was in focus. The goal was to provide a bigger variety of e-services, for example, exchange of the ownership could be done; the background of a vehicle could be checked; user's data could be changed; and the registration card or number plate could be ordered via online. It was important to understand and have balance between customer needs and what ERA can provide. As the e-service usage was in focus, the aim was to make them more proactive and as simple as possible. (Ziraff, 2014)

ERA conducted a survey that showed the usage and knowledge about ERA's services in 2013. 40% of the questionnaire respondents had searched information about ERA's services the previous two years. (Saar Poll 2013, 21) The most popular medium, from where to get new information was ERA's homepage. The second information source was the traffic bureau. In addition, 12% of respondents got information from eesti.ee. Most of the information was gathered from the Internet. (*Ibid*, 23) Service satisfaction, about finding service information from ERA's information channels, was valued rather good. 87% of the questionnaire respondents were satisfied or very satisfied with the correctness of the provided information. 82% of the respondents were satisfied or very satisfied with clarity of the information. (*Ibid*, 24) Next

interesting question was, if the respondents have visited some ERA’s bureaus during the two-year period and with what purpose. 47% of the respondents visited ERA’s bureau and 59% of the visitors wanted to register their vehicle. 32% of the visitors wanted to exchange the driving license and 11% wanted to make a theory or driving exam. (*Ibid*, 25) This shows that most of the things that users want to do in a bureau, can now be done online while decreasing bureaus workload. Survey’s respondent’s general suggestions were:

- To increase number of bureau workers, as the lines in bureaus were too long;
- Bureaus should be open on Saturdays and opening hours should be more flexible;
- In addition, there should be opportunities to manage things via Internet;
- Bureaucracy should be decreased. (*Ibid.*)

Those suggestions showed clearly, why e-services have to be developed and why they are necessary.

ERA’s e-service portal allows clients to use ERA’s services regardless of time and place. Those services are quick, user-friendly and make services less expensive. Table 1 shows e-services which have been developed until the end of 2015. In addition, the table below describes the e-services; the usage percentage in December 2015 and when ERA started tracking e-service usage.

Table 1. ERA’s available e-services

E-SERVICE	DESCRIPTION	USAGE PERCENTAGE
Applying for the first driving license	At least an 18 years old citizen, who has successfully completed initial training at driving school and does not have any traffic penalties, can apply the provisional driving license from ERA’s e-service. (Road Administration 2015b) (From June 2015)	47.05 %

E-SERVICE	DESCRIPTION	USAGE PERCENTAGE
Registration for a driving and theory exam	The registration for a driving and theory exams started in e-service portal in the beginning of 2015. Citizens could register themselves online instead of going to ERA's offices. (From January 2015)	Driving: 34.30 % Theory: 26.37 %
First driving license exchange	After 2 years, the first driving licence expire and new driving licence has to replace the old one. (From March 2015)	56.35 %
Temporary removal from registry	The temporarily suspension of the vehicle's ownership (From January 2014)	81 %
Driving license exchange	After changing the first driving license, the next license is applicable for the next 10 years. (Eesti.ee 2016) The driving license can be changed at the bureaus and in e-service portal. (From September 2014)	57.92 %
Adding or changing the vehicle's users	A service when a car is used by more than one person (From January 2015)	31.08 %
Ordering duplicate registry marks	Ordering duplicate license plate for the vehicle (From January 2014)	36.55 %
Ownership transfer	Changing the owner of a vehicle, also tracking backgrounds of different cars. (From January 2015)	18.94 %
Applying for an instructor's certificate	The purpose is to provide driving school students or graduates with more driving practice, to become a better driver. (Road Administration 2016a) (From July 2015)	69.01 %

Those services can all be done via online, although before they were provided only in service bureaus. (Road Administration 2015, 1) The e-service portal can be accessed via ID-card/Mobile-ID, pin codes or banking codes, (almost all Estonian banks are available). All services have to be digitally signed; therefore using e-services needs an ID-card. (*Ibid*, 3) ERA's e-services are user-friendly, quickly understandable and ERA has developed a full overview and directions, how to use specific e-service. (Ziraff, 2014) Furthermore, ERA won The Best Public Sector E-service of 2015 prize. (Estonian best e-service 2015) The best public sector e-service was the exchange of the driving license. This contest has a goal to introduce new, innovative and useful e-services. This is also a good opportunity for the public sector to promote its new services for a wider audience (internally and externally) and create credibility among users.

In 2014, the Estonian Road Administration launched a new e-service system. During the first year, 83 843 people accepted the terms of using the new e-services. (Kund 2014) The e-service recommendation index was 81%, which was quite high. The first action, which increased e-service usage instead of a bureau visit, was a -20% discount promotion from state fees. (Road Administration 2014, 10) The second action for attracting citizens was to send documents to the customers by post. Citizen's lives became more convenient. As a result, the most used e-service became the vehicle's background check, where people had searched data over 1.5 million times. (*Ibid.*) The main goal of vehicle's background check service was to allow users to get easy access to free data and to make smarter choices while choosing a new vehicle. (Velsker 2014)

From September 2014 additional e-services were launched, for example changing the driving license and ordering new one through post. (Kaukvere 2014) This was possible through X-road, where the ID-card picture of a person was taken from and was implemented to the driving license as well. Moreover, the health certificate, which was used before only on paper, turned digitally available and therefore created a possibility to apply for a health certificate via Internet. At the end of 2014, 32% of the driving license appliers had ordered a new license via the e-service function. 42% of the online appliers ordered it via post. (Road Administration 2014, 10) The driving license e-service was chosen as the best act of the year of 2014 at the Estonian Road Administration. It is not fiction anymore that driving license can be exchanged within 3 minutes without leaving home and it will arrive in three days in the customer's post-box. (Kaukvere

2014) The Estonian Road Administration clients appreciate fast, convenient, secure and cheaper service.

E-services should be developed based on the citizen's needs, not based on the internal needs of the public organizations. The Road Administration is a great example of how important is a customer's need. 2014 statistics show that e-services are used and recommended. In many cases, governments or municipalities offer public e-services, which are not used. For example, a governmental internal interest and technological possibility makes service provision electronically possible. That kind of an e-service will not get many users, as the citizens did not have the need for it in the first place. Therefore, the investments will not generate the expected outcome for that e-service. (Wallström, et al. 2009, 130) It is important to have a market-oriented approach in the public sector during the development of e-services. This provides with customer-oriented services, which make citizens everyday life easier and more convenient – adding value. (*Ibid*) The Road Administration creates their e-services according to the same principal.

2. CHAPTER II: LITERATURE OVERVIEW

This chapter will present research and studies, which are relevant to the purpose of this thesis. First, the concept of e-services and their popularity in Estonia is overviewed, in order to give the reader an extensive background information. In addition, the concept of marketing is analysed. Marketing is divided into categories - public and private sector marketing. Both characteristics will be brought out. Last but not least, the comparison between private and public sector marketing is made in a table form, in order to find out what are the similarities and differences between these two categories. The comparison will give an overview, where ERA's e-service marketing stands and how it should function in the future.

2.1 The Concept of E-Services and Their Popularity in Estonia

The section analyses the literature that has been found based on a public e-service concept. Many research papers currently encounter e-service, e-government or information system themes. This is not surprising as it is one of the fields, which has grown rapidly over the years. Many synonymous names have been used to characterize e-services, for example e-government service, public e-service, electronic service, digital service etc. That is why it is important to describe the concept of an e-service, not to mix it up with other synonyms. Only 'public e-service' concept has not been discussed a lot in articles. The difference between a service and an e-service is that a service is a process, where someone is served from what extra value is created. Moreover, an e-service is mediated electronically, through the use of information technology. (Lindgren, Jansson 2013) In many researches, e-service is defined as an effort or performance that has delivered to users by information technology. (*Ibid*) In some literature, e-service is "...an interactive, content-centered and the Internet-based customer service, driven by the customer and integrated with related organizational customer support processes and technologies with the goal of strengthening the customer-service provider relationship". (*Ibid*) Usually it refers to an electronic or Internet based technology, for example a web page. Some argue that SMS and mobile applications are also e-services. Moreover, Scupola et al.'s (2009) argues, that there is no

clear dividing line between services and goods. He claims that e-services have characteristics in common with goods as well as services; therefore, e-services are situated between goods and services. Furthermore, the main arguments and characteristics of an e-service is that it can be perceived as a technical artefact which is mainly Internet-based, involving interaction and have connection with other information systems (for example X-road). E-service is accessible and usable for its target group. (Lindgren, Jansson 2013, 167)

Some authors describe e-service really clearly and simply: e-service is an online version of a service. Information systems are important components in public administration. Their main function is to automate many manual routines, for example, a civil servant has to write down data repeatedly, although the data is already known. In addition, e-services provide a communication tunnel between public administration and a citizen. Citizens can interact via different e-channels, for example e-mail, online help line, online voting etc., instead of going directly to the office, calling the office or sending post. (Holgersson, Karlsson, 2014, 396) Automating the systems and using e-services can increase the efficiency of governmental authorities by decreasing many routines that are done manually. This also creates more transparency in governmental work. However, developing new information systems can be expensive, but decreasing the work force can reduce costs and time – also, make officials and citizens usage of a service more comfortable. (*Ibid.*) The development of an e-service depends on many aspects – internal and external stakeholders, finance, economy, businesses, but most importantly – citizens. Citizens have the power to give insight, is the e-service important or not. Moreover the knowledge, which can be analyzed from citizen's skills and needs (what they really need), has to be first in line, because if their behaviour is observed, it can bring success in e-service development. (*Ibid*)

Estonia is a role model of a successful e-government. (Athes 2015, 18) E-government refers to a government that uses technology and information systems, especially Internet based applications, to deliver information and services to citizens and other stakeholders. It is believed that e-government can build better relationships between the public (citizen's, private sector, partners etc.) and government - more efficient, easier and faster communication. (Layne, Lee, 2001, 123) E-government services rolled out in Estonia in the beginning of 2000, when Estonia launched its tax-filing service. Two years after ID cards were introduced which made universal access to governmental information and services possible (private sector services and law).

(Athes 2015, 18) From that time, Estonia has invested a lot to develop e-services and brought more functions online, especially to have connection with nationwide X-Road, which can be called Estonian data backbone, through which different services are orchestrated. (*Ibid*) The goal of Estonia's e-service development is to provide fast services with the smallest amount of administrative burden as possible. (Kalvet, et al 2013, 9) In 2015, Estonian government offered around 600 e-services to citizens and approximately 2400 for businesses. (Athes 2015, 18) Although, most Estonians cannot name all the available e-services, they can name some of them. In 2007 survey, 57% of 15-74 year old Estonians could not name any e-service that was provided by the public sector. 42% of Estonians who are Internet users could not name any e-services. 28% of Internet users could name independently e-taxation and tax declaration. (TNS Emor 2007) Knowledge and notoriety about e-services has growing rapidly. In 2010, TNS Emor measured again about the knowledge of e-services. Around 41% of the target group could not appoint independently any public e-service. Citizens who could not detect any public e-service were mostly from Southern or Northern part of Estonia, were around 50-74 years old, non-Estonians, with lower education and income rate and mostly retired. Only 29% of Estonians, who use Internet daily, could not name any public e-service. 63% of Estonians had used at least one public e-service. (TNS Emor, 2010, 14)

In 2013 80% of the respondents of the survey claimed that 12 of 15 e-services had been made public service usage easier. Again, tax declaration was the most known e-service. (Kalvet, et al 2013, 9) It is essential to make e-services more intuitive, proactive and simple, in order to encourage citizens to use them and increase their impact.

Although according to some special context, it can be possible to copy some Estonian e-services (except e-voting, ID card functionality and X-road), e-service export has not been successful. (Kalvet, et al 2013, 8) There is a possibility to export e-government solutions if they are presented to the international community, but generally, existing IT solution export in the same form as it is used in Estonia has failed. (*Ibid.*) Estonia has managed to save remarkable amounts of time and money by updating and developing e-services. However, many e-service providers have not analyzed the effectiveness and the amount of time and resources spent on development, which makes cost-benefit analyses complicated and inaccurate.

To sum up, 'public e-service' means almost in every literature that e-service is supplied by a public sector organization. (Lindgren, Jansson 2013, 168.) Although, the term 'public' does not always mean public sector or governmental agencies – it can also refer to availability for public usage. (*Ibid*) Many private e-services are available for public, for example financing or banking e-services. In this research author uses 'public' prefix as a term that illustrates public organizations, which are formal public entities that organize public administration (e.g., ministries, municipalities, regional authorities, and state authorities). Moreover, 'public service' in this research context can be defined as a service that is provided by the public organizations for citizens. (*Ibid.*)

By using e-services, the time for the user will decrease rapidly. If a public sector organization could create an online version of a service, it can decrease time of a public official and save administrative costs. For instance, registration for the first driving license can take 10 minutes of a public official's time. Using e-service can save almost 308 000 minutes of official's time per year. (Ziraff 2013, 96) This equals around 32 month of work. This will decrease public sector spending in the long run. Every service used on an e-service platform decreases clients' needs to visit physically bureaus. Public sector officials can use time more efficiently and offer better services, instead providing services that can be already done by users themselves via Internet.

2.2 Marketing in the Public Sector

In this paragraph, the concept of marketing is analysed. Marketing is divided into categories - public and private sector marketing. Both of them are compared in this current study. First of all, author analyses the concept of marketing; secondly, the characteristics of private and public sector marketing and last but not least, the comparison between private and public sector marketing, in order to find out what are the similarities and differences between these two categories. The comparison will give an overview, where ERA's e-service marketing stands and how it should function in the future.

2.2.1 The Concept of Marketing

Marketing is an activity, process and set of institutions that are meant to anticipate, identify, create, deliver, communicate and exchange valuable offerings that satisfy audiences, clients, citizens, partners and society as a whole. (Serrat 2010, 3) Marketing is a mix of science and art. (Betka, et al 2016) Most of the people think, marketing is only selling and advertising - every day there are TV commercials, direct email offers, sale calls etc. However, advertising and selling is only a small piece in the puzzle or the tip of the marketing iceberg. (Kotler, Armstrong 2009, 29) Marketing is an activity-related complex, which includes the market research, product design, choice of communication channels, pricing, sales support and sales themselves. Broadly defined, marketing is a social and managerial process, by which organizations and individuals obtain what they want and need through creating and exchanging the value with others (*Ibid*). In narrower case, marketing involves building profitable and value added relationships with customers (*Ibid*). The goal is to learn about customers' needs and about their satisfaction, meanwhile reaching the goals of the organization as well. (Jaansoo 2012, 6; Subramaniam, et al 2000, 364) Marketing activities help to inform citizens about services and goods, which private or public sector provides. In order to achieve the purpose of marketing, it involves two main tasks: communication and operating. (Subramaniam, et al 2000, 364, cited Park, Zaltman 1985) The communication task means informing customers through product label, service, price, promotion, package etc. The barriers are product accessibility, availability etc. The operating task is to remove the barriers and enable consumers to consume the product or service with minimum effort. (Subramaniam, et al 2000, 364)

Moreover, there are different kinds of marketing, for instance, social marketing, which seeks to influence the behaviours of the society and clients, not to benefit the company, but to benefit the general society. (Weinreich 2006) This field of marketing is perfectly suitable for public sector, because public sector does not have the goal to earn profits by selling its products or services. Also social marketing is suitable for ERA, because their goal is to change the behaviour of citizens, while promoting e-services. Citizens should choose e-service version, because it is more convenient, easily accessible and cheaper than going to the bureau. In addition, content marketing is an important part of the marketing. People like to read informative articles, which add value to their everyday lives. Nowadays citizens skip TV advertising, ignore online advertising and do not read real papers anymore, where also adverts could be seen. (Content

Marketing Institute) “Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly-defined audience – and, ultimately, to drive profitable customer action” (*Ibid*) It is an art of communicating with citizens, without selling directly a product or a service. Instead, it makes a reader more intelligent and smarter, because the contents focus is to give value added information. (*Ibid*) For instance, ERA used content articles in car-related websites and magazines. ERA should use content marketing in their further marketing strategies as well, because through interesting and value created content, it is possible to reach the right customer.

Marketing has different approaches, how to reach the customer. Going further, marketing has also two main directions - product marketing and service marketing. Although, they are quite similar, there are some characteristics, which should be distinguished. (Director Media 2003) Product marketing is connected with the first 4P's of marketing, which are Product, Pricing, Place and Promotion. Product marketing promotes a product to customers. It deals with more outbound marketing tasks. (RocketWatcher 2010) Service marketing focuses on delivering experiences, processes and intangibles to the customers, instead of products. (Zeithami, et al., 2010) A service is an action of doing something for someone or something. It is mainly intangible - a service cannot be touched, seen, tasted etc. (MarketingTeacher) In order to market a service, it is important to define the organizations mission, understand the expectations and needs of the clients, offer variable information about the service, train and retrain the citizens and office staff members. (Jaansoo 2012, 23) In this study, the author focuses on service marketing, because ERA's main portfolio consists of services.

2.2.2 The Characteristics of Marketing in the Private and Private Sector

Marketing is a process of communicating the value of products or services to customers, in order to sell that product or service. (Institute of Management and Science 2014; Kotler, Armstrong 2009, 29) In this sense, marketing is tool for every sector and organization, both in the public sector, the private sector and non-profit sector, in order to inform customers or citizens about their products or services. This section brings out the characteristics of private and public sector marketing.

To begin with, it is necessary to understand how private sector is characterized. Private sector is part of the economy, which is run by the private individuals or group of people and driven by the market. The private sector is composed of organizations, which are privately owned and not part of the government. Most of the cases the private sector is profit orientated and not controlled by the state, although the laws which every individual and institution has to follow, are regulated by the state. (Institute of Management and Science 2014, 17) Private organizations are not so affected by the destabilizing events that take place in the political arena, because professional managers control the resource allocations. (Lamb 1987) Although if political decision is to prohibit for instance, alcohol marketing, then it affects a lot public sector organizations (as well as companies who sell alcoholic drinks and also media agencies, creative agencies and portals where those commercials would appear). Private sector organizations offer goods or services to the customers, at the same time competing with other organizations, whose products or services are similar and whose aim is the same - offer people their products or services. They provide quality services or products to the community, in order to win consumers trust and compete with competitors. (Surbhi 2015) Marketing appears, because it is important for the organization to stand out and find customers, who could consume their goods or services. Private companies have autonomy and flexibility, which means it, affects the speed and extent, which they are able to implement marketing activities. (Lamb 1987) The traditional role of marketing has been to respond to, manage and create consumer needs. (Burton 1999, 375) Marketing has focused many years on a particular 'marketing mix' or '4P', which includes product that is provided, the price, which is charged, the promotion and the place or channel, where the product is communicated. (*Ibid*, 375) The 'marketing mix' was extended by three additional variables - People, Physical evidence and Process, thus making 4P into 7P. (Proctor 2007) A successful marketing mix combines all these variables. Marketing is about creating value for the customer and building strong and profitable customer relationships. The organizations have to understand, what the consumer wants and needs and deciding, which markets the organization can serve the customer the best. The organization has to find a position, by which it can attract, grow and target customers. (Kotler, Armstrong 2009) Outstanding companies understand the marketplace and the customer needs, they design special marketing strategies, in order to deliver customer value and build strong relationship. In return, they attract the customer and it comes from a form of sales, profits and customer loyalty. (*Ibid*) Marketing helps to build company's image and create strong, well-known and trusted brand, which in turn builds customer value and profitable customer relationships. (*Ibid*, 16) Moreover, in the private sector it is important to analyse the results of

marketing, because marketing activities and the outcomes are connected with company's profits. For example, if the marketing manager invests 1000 € into a campaign and in turn the profit grows 10 000 €, it has been a successful marketing plan. It is important to ensure the investments in marketing are being well spent, because the main goal of private sector organization is to maximize their profits. Marketing accountability and measuring the return on marketing investments is an important part of strategic marketing decision-making. (*Ibid 17*)

While technology is developing rapidly, it is possible to market products and services globally. For instance, many tourism related companies offer their services outside of the country, because they are focused on foreigner clients. In the private sector, a person who buys a service or a product also pays for it, or is closely linked to the payer, makes his choice by himself which product or service he wants to buy. (Burton 1999, 376) Although, marketing can manipulate with citizens in negative way and lead them to buy or consume services that they actually do not need. (Barbu 2011) Private sector customers ration their use of the service or product by the price, so the price comes from the intercourse of supply and demand. Marketing in the private sector is mostly aimed to the buyer of the product or service. This means, the marketing strategy can be done more personalized, especially when nowadays so much data (i.e. Internet cookies) is available. For instance, a person, who clicked on a specific service banner, will see a similar banner also in the next websites where he goes, because re-marketing is a new tool to contact with the consumer. This means, public sector organizations have different abilities to personalize relations between the public service provider and a customer. (Barbu 2011) In conclusion, private sector has wide variety of possibilities how to market its products and services. Private organizations can mostly include professional marketing specialist to their teams and most of the time, marketing budgets are separated from the company's budgets, in order to market their services and goods. Moreover, private companies are more focused on marketing analysis, which means marketing has to be rationally planned and implemented, in order to bring back profits and clients.

Public sector refers to the part of economy, which provides different governmental services. Most of the times, public sector includes military, police, healthcare, public roads, education etc. services. The public sector offers services, which benefits the society, rather than just the individual who uses the service. In the public sector, the most important thing is to offer services to the people. (Institute of Management and Science 2014, 18) The public sector is one big part

of economic life, which is not in a private ownership, which deals with the production, delivery, and offering all basic public goods and services in many levels (global, regional, national, local level). (Serrat, 2010, 1; Peattie, et. al. 2012, 988) Within the academic literature, marketing in the public sector is slightly under-represented. In addition, there are many debates about public sector marketing appropriateness and value. (Peattie, et. al. 2012, 988) The public sector has elements and characteristics of marketing, but they have usually been marginal to the provision of core public services and goods. (Serrat 2010, 3) For instance, from 1979 to 1980, public sector marketing increased significantly, but in the next two decades it decreased, (Kaplan, Haenlein, 2008) although the past few years, public service marketing has again attracted many public sector managers and politicians. Public sector marketing is very versatile; after all, the public sector includes government departments, ministries, agencies, hospitals, schools, theatres, museums and many other institutions. This is why public sector marketing does not have a unified definition. (Marketingi instituut 2015) Serrat points out that marketing in public sector can only become relevant when the main fundamental political decisions have been made on commitment to and responsibility for collective agency. Nowadays, public sector organizations have become more market-oriented. In addition, there are no clear lines anymore between “pure private” and “pure public” sector. (Serrat 2010, 2) Some special mix of product design, pricing policies, distribution systems and promotional strategies are optimally blended to attract special segment needs and wishes of the total market, characterizes marketing. (Graham 1994, 367) The importance of public organizations cannot be undervalued because of distinct skills, services adapted to customer needs and favourable image. Those points can be achieved by implementing marketing in the public sector activities. (Barbu 2011, 58)

Walsh (1994) points out that public service marketing has grown and the nature of public sector marketing can be considered under the growth of consumerism; the usage of promotions; and the adaption of strategic marketing. Consumerism has a number of forms in the public service, for instance customer-consciousness, notably decentralization, improved communication, better choice and systems of redress. (Walsh 1994, 64) Strategic marketing forthcomings have been developed in the expectation that public organizations will compete, in the public realm and with the private sector. This put public sector services in a comparable position to private sector organizations, which they must occasionally compete. (*Ibid.*) Most of the time, public sector does not have competition, which decreases the necessity of marketing. (Institute of Management and Science 2014, 31) Still, strategic approach is necessary, when public sector

service's monopoly position is eroded and they must act in a sense how others will act. This means, promotional techniques will be needed. It is important to stress out, that there are different approaches for the public sector marketing. For example, social marketing, which applies tools and processes to pursue public organization goals by developing behavioural change, aimed at special target group. (Peattie, et, al. 2012, 988) Big nationwide advertising campaigns are common, when government wants to promote some special initiative, for instance, do not drink and drive; wear a reflector, then a driver can see you; wear a seatbelt, drink less and enjoy life more etc. Most of the public sector promotion campaigns have been imago campaigns, which try to change citizen's behaviour for the better.

Walsh argued in 1994, that the state should have a role of governing, not producing services. Services should be provided by the private sector, but his thoughts were written over 20 years ago, which makes a great difference now, because the world and society has changed. If marketing is used in the public sector, it should have its own character and should be different from the private sector, not to imitate private sector approach within the public service (Walsh 1994, 70, Barbu 2011, 59). For instance, marketing strategies in private sector cannot be transferred directly to the public sector. (Wallström, et al 2009, 126) Moreover, the Table 2 shows, public sector organizations are not as flexible as private companies are. This affects the speed, with what they are able to implement marketing activities, for instance, optimizing price structures, introducing programs, focusing on the most responsive segments of a market etc. (Lamb 2011, 58) This does not mean that public sector cannot act sufficiently in marketing sphere, although they do not have as much flexibility as private sector firms. (*Ibid*) According to different literature, the necessity of marketing implementation in the public sector has been divided into two main paragraphs, which bring out the positive and negative aspects of marketing in public sector. The main differences are presented in Table 2 and explained detailed in below.

Table 2. The positive and negative images of the Public Sector Marketing

POSITIVE APPROACH OF MARKETING	NEGATIVE APPROACH OF MARKETING
<ul style="list-style-type: none"> • Creating awareness • Informing customers • Influencing attitudes and behavior • Lowering segregation. (Wallström 2009, 127) 	<ul style="list-style-type: none"> • Marketing invades privacy • Forces itself too much on the customer • Can manipulate with citizens customer (Barbu 2011, 58)
<ul style="list-style-type: none"> • Create more value to satisfy citizens (Barbu 2011, 59) • Deliver relevant information just to the right customer (Wallström 2009, 127) 	<ul style="list-style-type: none"> • Marketing puts public organization in a bad lighting – desire to attract more customers (Barbu, 2011, 58)
<ul style="list-style-type: none"> • Marketing is said to be appropriate for all organizations – public and private (Graham 1994, 361) 	<ul style="list-style-type: none"> • Message are not always customized for special target group • Can lead to miscommunications (Barbu 2011,63)
<ul style="list-style-type: none"> • Attracting new investors (Wallström 2009, 127) • Reducing costs (i.e. citizens will use e-services, instead of using public servants service). 	<ul style="list-style-type: none"> • Marketing is expensive (<i>Ibid</i>) • Complicated to find budgets for marketing (Butler, Collins 1995, 84)
<ul style="list-style-type: none"> • The possibility of outsource marketing experts 	<ul style="list-style-type: none"> • Not enough marketing competence in Public Sector (Butler, Collins 1995, 84) • Lack of understanding of the different types of marketing, i.e. managers equalize marketing with advertising, unknowingly about marketing mix (Serrat 2010, 4)

POSITIVE APPROACH OF MARKETING	NEGATIVE APPROACH OF MARKETING
<ul style="list-style-type: none"> • Keep the customers and citizens loyal to the public sector organization • Creating a trustworthy brand (Jaansoo 2012) 	

To begin with, it is argued that marketing is not necessary, because marketing invades privacy and forces itself too much on the customer. In addition, it puts public organizations in a bad light – desire to attract more customers. (Barbu 2011, 58) In addition, marketing in the public sector is rather a taboo word, because it has negative image, where marketing is related to commerce, advertising, profits, money, etc. Other expressions are frequently searched for, to define public sector marketing, for instance, communication, educating people, customer service or customer-orientation etc. (Marketingi instituut 2015) Moreover, public institutions target their services mainly to the whole society and their message are not usually customized for targeted group of citizens. It can lead to miscommunication and not all citizens can relate or understand the message in the same way. (Barbu 2011, 63) Furthermore, the public sector is influenced by different political factors, such as decision makers, ministries, administrations etc. For instance, central administration has a direct impact on the economy of state. (Barbu 2011, 60) This also influences the sufficiency or insufficiency of financial resources. Professional marketing needs resources, but usually there is not enough financial depositary for marketing. Additional difficulties to implement marketing in the public sector are connected with executives, employees or personnel, who demonstrate lack of interest or motivation, marketing vision and incompetence. Sometimes the fastest solutions are accepted that need only minimum effort. (*Ibid.*) This means, the promotion of public services depend largely on the activity of central governmental bodies, politicians and political-legislative marketing environment. Moreover, the non-marketing disciplines argue that marketing is dangerous, because commercial purposes are antithetical to the public service ethos of universality, care and the collective good. (Butler, Collins 1995, 84) Public organizations have not as much market exposure than the private sector firms, because majority of public organization revenues come from political appropriations, instead of clients directly, who buy their services. (Lamb 1987, 59) This can be an argument why it is complicated to find budgets for the public service marketing – public services are not

usually financially beneficial. In most cases, the main goal of public service marketing is to create awareness, influence public beliefs, attitudes, and reduce costs (citizens will use services online, instead of using public servants service). (O’Keefe 1990, 67) Another obstacle of using marketing in the public sector is a lack of understanding of the different types of marketing in which it engages and helps to build relational capital. (Serrat 2010, 4) For example, many public sector managers equalize marketing with advertising, unknowingly about marketing mix (4P’s – promotion, product (or service), place, price) or other important factors of marketing strategies.

On the other side, marketing in public sector can create more value to satisfy citizens. Marketing is beneficial to the public sector, because it can create a loyal customer base and get attention from new users. (Barbu 2011, 59) Marketing is said to be appropriate for all organizations – public and private (Graham 1994, 361). Local or governmental organizations have also used marketing campaigns in order to attract new investors. Marketing can penetrate too far into citizen’s life, but if ethical measures have been used, marketing can help to deliver relevant information just to the right customer – provide customers what they really want and create extra value. Moreover, marketing public sector services, especially e-services, can lower the visits to public bureau offices. Instead of standing in the line, citizens can use e-services at home, via Internet. If there was no information about the possibility to use e-services online, how should citizens know about the convenient alternative – doing the same thing as they have done before now online. Marketing should be used for creating awareness, informing customers, influencing attitudes and behaviour, and lowering segregation. (Wallström 2009, 127) That is why marketing must surely be seen as an essential part of the public sector management. Many private sector tools, approaches or methods have been already adopted in the public sector. (Serrat 2010, 4) If public organizations do not have special skills or marketing experts, there is a possibility of private alternatives, for example outsourcing marketing experts. Therefore, public sector marketing becomes more relevant. (Wallström, et al 2009, 127)

2.2.3 The Comparison of Private and Public Sector Marketing Approach

The lines between public sector and private sector models are blurry, there is no “pure public” or “pure private” sector. (Serrat 2010, 2) From Table 3, it is possible to distinguish the most important differences between private and public sector, in order to analyze their marketing

capacities. Public sector marketing has not played any significant role in the past, because it has largely been perceived as a commercial and consequently irrelevant to the public organizations, although now the paradigm is changing. Marketing public sector services is considerable, although there are many obstacles, for example strongly influential political will and environment, resources (personnel and financial), competence, strategies and finding the best way to implement solutions. (Barbu 2011, 63) Academics, who consider marketing being difficult and inappropriate in the public sector, talk about the difficulties in implementation and marketing's nature for being not understood; moreover, it is difficult to identify the public sector customer. Maybe the customer will never find this service useful, for example, ownership transfer etc. Some academics do not support the idea of public sector using same tools as private sector. (Graham 1994, 374) But many articles and case studies reveal, using private sector tools, as marketing, can be effective and appropriate. (Graham 1994; Barbu 2011; Wallström, et al 2009) It definitely has to be targeted to the right target group and on the right time.

Table 3. The Comparison of Private and Public Sector Marketing Approach

BASIS FOR COMPARISON	PRIVATE SECTOR	PUBLIC SECTOR
Competition	<ul style="list-style-type: none"> • A lot of competitors in the market (Serrat 2010) 	<ul style="list-style-type: none"> • Does not compete with other public sector institutions or private sector organizations (Serrat 2010)
Communication language	<ul style="list-style-type: none"> • More aggressive than neutral (Serrat 2010) 	<ul style="list-style-type: none"> • Informing, changing citizens behaviours (Serrat 2010)
Basic objective	<ul style="list-style-type: none"> • Earn profit, sell goods and services (Serrat 2010) 	<ul style="list-style-type: none"> • Inform citizens about their services and change citizens behaviours (do not drink and drive etc) (Serrat 2010) • Create awareness, influence public beliefs, attitudes, and reduce costs (citizens will use services online, instead of using public servants service). (O'Keefe 1990, 67)

BASIS FOR COMPARISON	PRIVATE SECTOR	PUBLIC SECTOR
Customers for the product or service	<ul style="list-style-type: none"> • Individual choice in the market (Serrat 2010) • A person who uses a product or service usually is the person who pays the price or is closely linked to the payer. The choice is made freely. (Burton 1999, 376) 	<ul style="list-style-type: none"> • Collective choice in the polity (Serrat 2010) • The user of a service typically does not pay for the service and may be a reluctant or unwilling user of a service, for instance a police or hospital services. (Burton 1999, 376)
Price and the product/service	<ul style="list-style-type: none"> • Customers will ration their use of the product/service subject to the price (Burton 1999, 376) • Private companies use direct customer pricing to gain profit (Lamb 1987) 	<ul style="list-style-type: none"> • The monetary price to the public sector user is usually free of charge, some services have state fee (Burton 1999, 376) • They rely upon taxation or philanthropy for at least some of their revenues (Lamb 1987)
Clarity of objectives	<ul style="list-style-type: none"> • Measurement of success against the goal is straightforward (Burton 1999, 377) 	<ul style="list-style-type: none"> • Measurements of success against goal very complicated and have long term effects (Burton 1999, 377)
Promotion	<ul style="list-style-type: none"> • Primarily aimed at the purchaser of the product or service, allowing focused promotion strategies (Burton 1999, 376) 	<ul style="list-style-type: none"> • Promotion needs to be aimed at multiply stakeholders (Burton 1999, 376)
Nature of the product	<ul style="list-style-type: none"> • Sell product and services (Burton 1999, 376) 	<ul style="list-style-type: none"> • Provide services mostly for free, and/or encourage behavioural change (Burton 1999, 376)
The willingness of customers	<ul style="list-style-type: none"> • Benefits to the consumer from choosing the advertised product or service outweigh the costs (Burton 1999, 375) 	<ul style="list-style-type: none"> • Persuading people to use a service or to act in a way, which imposes short-term costs on the individual. Those costs can be balanced by longer-term benefits to the individual (stopping smoking) or to the community (paying taxes). (Burton 1999, 375)

BASIS FOR COMPARISON	PRIVATE SECTOR	PUBLIC SECTOR
Autonomy and flexibility	<ul style="list-style-type: none"> • Has autonomy and flexibility, which affect the speed, how quickly they are able to implement marketing activities (Lamb 1987) 	<ul style="list-style-type: none"> • They have less autonomy and flexibility, which affects extend and speed as well. (Lamb 1987)
Degree of market exposure	<ul style="list-style-type: none"> • Private sector depends on the market (Lamb 1987) 	<ul style="list-style-type: none"> • They have less market exposure than private companies, because they obtain at least some of their profits from political appropriations, instead of directly from customers who buys their services (Lamb 1987)
Performance evaluation	<ul style="list-style-type: none"> • Private firms rely on precise profit figures for measuring their performance (Lamb 1987) 	<ul style="list-style-type: none"> • The complexity and intangibility of the public sector objectives make performance evaluation difficult (Lamb 1987)
Resources	<ul style="list-style-type: none"> • Financial resources depend on the organizations revenues • Demand and price (Serrat 2010) 	<ul style="list-style-type: none"> • Need for resources (Serrat 2010) • Not enough financial depositary for marketing (Barbu 2011) • Lack of understanding of the different types of marketing in which it engages and helps to build relational capital. (Serrat 2010, 4)

In conclusion, the comparison in Table 3 shows, there are differences, for example in resource—how much should the public sector invest in marketing, while there is not enough financial depositary for it; at the same time in the private sector the marketing budgets depend on company’s strategy and profits. Based on the literature (also based on Table 2 and Table 3), it can be concluded, marketing is necessary in the public sector. It definitely depends on the area and strategy, but for instance, promotion of e-services in order to decrease the lines in bureaus, is necessary. If citizens are not aware of new possibilities (e-services), which make their lives more convenient, it is hard to see the growth in e-service usage, because people do not know about them. Although, public sector is different, there is a need to implement marketing, based on private sector examples.

3. CHAPTER III: THEORETICAL CONCEPTS

The following chapter describes the theoretical approaches used in this thesis. In the theoretical part author presents five theoretical concepts in the following order. First, the research is looked through sociological viewpoint. The socio-technical system approach is used, which helps to understand the interaction between technology and people. Estonian Road Administration e-services can be described as a technological system. The citizens can be described as the end users, who use the e-services on the other side. This theory suits this thesis, because it describes the connection and relationship between human behaviour and technology. Moreover, the author continues analyzing services and e-services - what are the main functions and characteristics of an e-service; what are the service phases and life cycles? A comparison has been made with the Estonian Road Administration e-services. In addition, a good e-service has to have a good design, easy to use and proactive. E-service design characteristics are explained. Lastly, the research is looked through the marketing approach. Without strong marketing strategies, it is hard to sell services. Service marketing is looked through service dominant logic approach, which means, a customer is a partner for the service provider, with the aim of provide better service.

3.1 Socio-Technical System Approach

Technology is ruling the 21st century. Life cannot be imagined without using technology anymore. Socio-technical approach is looking into human behaviour, technology and the interaction between them. For instance, it is speculated that the increase in automation will make the future more flexible, where people can function better. (Zwaan 1975, 152) The socio-technical design as a technological task must create satisfaction in people (social contact, recognition, responsibility to make decisions, possibilities of getting on in life, safety, extending one's knowledge, meaningful work and so on.) (*Ibid*) This can be one of the reasons why humans adapt to a system, which is accordant to their needs, much better. The socio-technical approach creates more value for the people. This means that both, social and technical aspects are closely connected with one another. In the 21st century, it is important to implement a socio-

technical approach to the system development, as it creates a system, which is more adaptable and acceptable to the end users. (Baxter, Sommerville, 2010) System design should be a process, which considers technical and social factors to affect the functionality and the usage of computer based systems. (*Ibid*) Many systems meet the ‘requirements, which are necessary for systems to work properly, but still are considered as failures, because they do not meet the end user expectations. (Norman, 1993) In addition, people do not want to do most of the tailor jobs anymore. Those jobs are now (and should be) replaced with robots and machines, while people can create more added value with their “free time”. (Piirsalu 2014) Like this, we keep our living standards at a reasonable level. Smart machines have replaced the calendar, radio, stopwatch, compass, maps etc. and it has happened only within the last ten years. The machine is a clever thing, which carries a person's free time in its hands whenever a person commands it. (*Ibid*)

Thanks to the development of ICT in the public sector, the government can offer citizens smart services, like e-services. They are unique, as they make citizens and officials everyday lives more convenient. ICT has made quick and easy communication possible between the public sector and a citizen. Moreover, e-services reduce the cost of transactions and make services more proactive. (Watson, Leyland, et al. 2002) E-services not only make customer’s service process easier and better, but also their usage offloads labour-intensive activities from the provider to the customer. (Taherdoost, et al 2013) E-services are important, because they provide solutions to the customers and at the same time they strengthen the customer service relations, create transactional efficiencies and improve citizen's satisfaction. (*Ibid*) This means, citizens communicate more with different technologies and governmental organisations.

Although people live in an IT based world, there are changes that are difficult to adapt for the society. This depends on the behaviour of the citizens, culture and history. The trend is moving towards e-society, where most activities can be done online. At a governmental level, smart machines have already started to reduce bureaucracy. (Piirsalu, 2014) In addition, the Estonian Road Administration has launched an e-service portal that gathers popularity and usage every month. In this research the author analyses how ERA’s e-service usage influenced the bureaucracy level and how has the usage of ERA’s e-services developed - are they adapted quickly or their usage growth is slow.

3.2 The Concept of Services and E-Services

The term ‘service’ has many characteristics. Services are usually described as intangible and their output is viewed as an activity, although many service outputs are tangible. (Johns 1999, 959) Services can also imply organizations, which meet the needs of the society, for example Civil Service, etc. (*Ibid*) It is hard to identify service with one marker. Service is not only an activity and not only a product. Services are hard to describe: services are not separated from consumption, while production and consumption of a service occurs mostly at the same time; services cannot be stored, because services are not physical; services cannot be owned, most of the services are used on the spot; services are complex experiences, services happen over time and across several touchpoints; and service quality is difficult to measure, the measuring tends to be more qualitative rather than quantitative. (Moritz 2005, 31)

Services can be provided by different sectors. Private sector is mainly composed of organizations, which are privately owned and not part of the government. Private sector is part of the economy, which is run by the private individuals or group of people and driven by the market. (Institute of Management and Science 2014, 17, Privacy Sense 2016) Mostly, the private sector is profit orientated. For instance, retail stores, credit unions, local businesses etc. Those services can be banking services, shopping online and so on. The Public sector refers to the part of economy, which provides different governmental services and includes institutions and organizations, which are owned and operated by the government. For example, federal, state, provincial, municipal governments. (Privacy Sense 2016) Public sector includes military, police, healthcare, public roads, education etc. services. The public sector offers services, which benefit all of society, rather than just the individual who uses the service. (Institute of Management and Science 2014, 18) In this research, the author focuses on the services, which are offered by the public sector. The research is about Estonian Road Administration e-service case study.

When focusing on public sector, e-services can be described as an e-government service, public e-service, digital service, e-Public-service. The “e” stands for something done electronically. The “service” represents a process in which extra value is created for somebody. It is something intangible. From that point of view, e-service concept can be described from two perspectives –

electronic perspective and service perspective. (Lindgren, Jansson, 2013, 163) Electronic perspective describes when something is produced and controlled by a computer, some other electronic device or information technology generally. For instance, electronic service is an effort or performance whose delivery is possible by information technology. (*Ibid*, 166) Service perspective can be characterised as a dynamic process with value fulfilment for the customer. (Lindgre, Jansson 2013 cited Grönroos, 2008)

Moreover, the services can be divided by its availability and ownership, which in turn means public or private. Sometimes the prefix 'public' is used to show the difference between the public and private e-service. (Lindgren, Jansson, 2013, 167) Yet, service ownership can vary from production and financing. Public sector services can be public from the ownership perspective, but private from the production perspective. Because of this, the borderline between public and private has become less distinct. (*Ibid*) Still, there are fundamental differences. For instance, e-services should be separated by two concepts: e-commerce and e-government. (*Ibid*) Moreover, public organizations have more monopolized and compulsory situations - lack of exit (driving licenses, vehicle owners exchange etc.). Private organizations have more competition on the market and citizens can choose which service they would like to use (which telecom companies' service, or bank service to use, etc.). Lastly, private sector companies are not forced to sell their services, but there are services, which are compulsory for the public sector to offer. (*Ibid*, 168)

The e-service concept has many different ways to be referred. In this thesis, e-service is defined as an electronic service, which is provided by the government or municipality. Estonian Road Administration e-services are public services, which are provided by the Estonian Road Administration (ERA is under Economy and Communication Ministry). From the e-service perspective, they typically deal with intangible goods - exchange of information to create some value. Hence, information is managed by e-services and the connection between the citizens and government becomes an information-based relationship. (Lindgren, Jansson, 2013, 166)

3.3 Service design

Good services have special characteristics, which define the concept of a good service. A good public service must be available for the right customer at the right time and place. Moreover, service quality plays an important role, because customers are the judges of the service quality. For instance, ERA's recommendation index in 2014 was 81%. (Saarpoll 2013) This means people have given good feedback to their e-services. If services would not meet the requirements of the citizens, citizens would not recommend them to other users and give positive feedback. ERA's e-services have been announced to be as one of the best governmental services in Estonia. (Estonian best e-service 2015)

E-service must be simple in terms of language, design, technical capabilities and the structural logic of its functionalities. It is extremely important to have the logic of the whole information architecture environment – the way information and its structure has been built, how it connected to other structures (for example X-road) and how is made available to the customer. (Ministry of Economic Affairs and Communications 2016) User-friendly interface means that Internet users are able to do the same tasks, which customer service has been trained to do. Therefore, the user interface has to be logical and support customers while using e-services. (Ziraff 2014) There should not be reasons for the customer to read the manual or use consultations. The e-service interface should be so easy that there is no necessity for help. (*Ibid*) Moreover, public sector e-services have to meet strict rules and standards regarding usability, navigation and design. For instance, Estonian public sector uses WCAG2.03 AA framework, which requires using an already existing and properly working web solution. ERA is a good example of a public organization, which uses standardised login and other specific architecture frameworks. (*Ibid*)

“Service design is the design of the overall experience of a service as well as the design of the process and strategy to provide that service” (Moritz 2005, 38) Service design has also been described as “an orchestration of clues, places, processes and interactions that together create holistic service experiences for customers, clients, employees, business partners or citizens”. (Jakob, Robert 2016 cited Ostrom et al. 2010, 17) This definition underlines the user-centred design and service system aspect of the service design. (Jakob, Robert 2016) Understanding user's experience and identifying user's problems while a service is used has become a central component, which influences service design. Service design helps to create new or improve the

existing services - make them better, more useful, usable, desirable for clients, more efficient and effective for stakeholders. (Moritz 2005, 13) Service design is a practice of making services better through research, developing ideas and testing experiences. (Shuman, 2014) Four D model divides service design process into four steps - Discover, Define, Develop and Deliver. It is about understanding the client, stakeholder, organization and market; develop and create ideas, translate them into feasible solutions and implement them. (Moritz 2005, 38) Service design is an ongoing service life cycle, which offers continuous evolution. It is not a short project, but an ongoing process. (*Ibid*, 40) Service design helps to see opportunities, ideas, solve problems and create solutions.

In this thesis, the service design concept is characterized, because it is the most suitable approach, which describes ERA's e-service development. When designing a service, service designers should have an open communication with everyone, who is involved with the service or being affected by the service. For instance, service designers have to understand the ways of thinking of the stakeholders (governmental officials, customers, employees) and know their ideas about the ideal service experience. For example, should the service be informative, accessible, safe, simple, fun, fast etc. This survey will give an overview of the current service and what would the new characteristics of a service should be to satisfy the needs of the stakeholders. (Shuman, 2014) In ERA's case, there was a clear need to develop e-services. Estonian Road Administration had the willpower to make a change in their service offering. The organization was ready and citizens were ready to start using the e-services. ERA's management supported clearly the development of its e-services. (Ziraff 2014, 25)

The service should be tested by people, using service prototypes, in order to test how the changes of a service improve the overall service experience. Those phases should be repeated, in order to understand the problem better. At the end of the process, the newly designed service should be implemented. (Shuman, 2014) To develop a new e-service, it is necessary to follow basics steps and phases, which result in a good e-service.

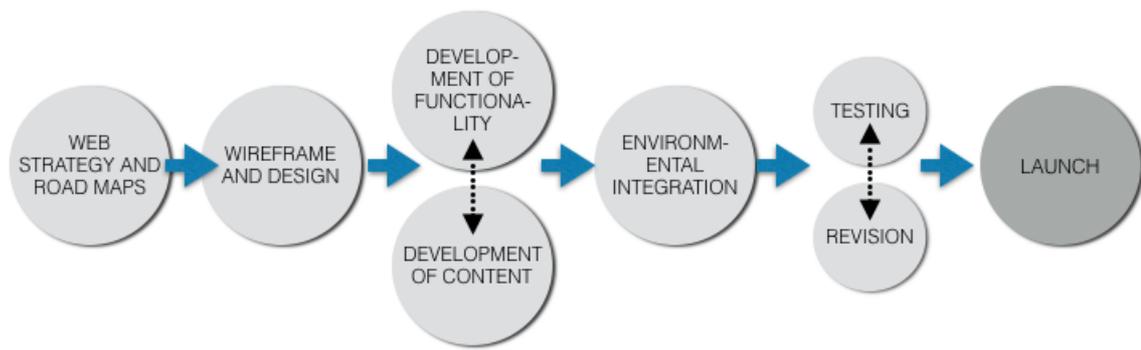


Figure 1. E-service development process (Ziraff 2014, 34)

This kind of mapping, as it is shown in Figure 1, was done during ERA's e-services' development. The service was tested many times before it was launched and revised while finding bugs. However, the web-strategy phase was skipped and many strategic questions were answered daily. Not doing the web strategy part means re-doing analyses and developments, which takes also a lot of time. Strategy is important, because while developing an e-service it is necessary to capture the whole picture. (Ziraff 2014, 36) In the design and wireframe process, ERA had many arguments that prolonged the result. The problem was with ERA's CVI that took more time than expected. The copy and content has to be clear to the end user - what is this service about and how to use it. Functionality and content development consisted of brainstorming; writing texts; design; content management; content translation and realization of sheets. (*Ibid*, 38) Content in ERA's example was made in the final part of the service development, which could also have started earlier. Environmental integration, testing and launch are the next steps in e-service development lifecycle. If wireframe, technical realization, content and functionality has been integrated into one environment, there will be integration and usability problems, which has to be tested and revised. All the problems should be cleared and repaired before launch. E-service should go live when most of the mistakes and bugs are reached the toleration line. Based on ERAs example, all functionalities cannot be developed once and at the same time, which is why the last phase can take place years after launch, even if the e-services have been live for almost 2 years. (Ziraff 2014, 42) It is important to have design and wireframe phase done with high quality, because it can decrease the final cost. If design and wireframe phase is not done sufficiently, changes and fixes can cost up to 10 times more. ERA costs for IT development were 216 000 euro and for the design and wireframes 21 000 euro. This

is why it is important to make the base and fundamentals with high quality, to create a strong layer on top of the base. (*Ibid*, 100)

3.4 Stages of E-Governmental Services

E-government is a derivative phenomenon and e-government initiatives should be derived and enforced. Layne and Lee in their research propose four stages growth model for the e-government. The e-government four stages growth model consists of cataloguing, transaction, vertical integration and horizontal integration. (Layne, Lee 2001, 124) In the first phase, the state government is focused on creating an online attendance for the government, for instance web development. In the end of this phase, the government starts to establish index pages for citizens to look up for information or necessary downloadable information forms. Those efforts in this phase are focused on cataloguing information to the web. (*Ibid*, 125) Estonian Road Administration has updated its website from 2010, where they added sections, which inform citizens about traffic laws etc. In addition, ERA added some help materials to their updated website. This extra value decreased the lines at the bureaus and the information call center. (Road Administration 2010, 60)

The transaction phase focuses on connecting the internal governmental systems with online interfaces, which allows citizens to interact or transact with government electronically, via online. (Layne, Lee 2001, 124) In this phase, the government puts live database links to online interfaces, so citizens can pay fines or exchange their driving license online. In the ideal model, web transactions are posted directly to the functioning governmental systems and it has minimum interaction with governmental staff members. While all the data is linked to each other at different governmental levels, citizens will see government as one integrated information base (*Ibid*). It would be like ‘one stop shopping’ for citizens. Estonian Road Administration provides many e-services, where citizens can interact with the government electronically, for instance driving license exchange, control vehicles, ownership transfer, applying first driving license etc.

This kind of connection between government and citizen can realize in two ways: vertical and horizontal. Vertical integration means local, federal and state governmental organizations are connected for different governmental services or functions. (*Ibid*) For instance, driving license

registration system in the Estonian Road Administration is linked to a state database, to give a full overview of the citizen. Horizontal integration can be characterized as integration across different services and functions. Those functions are from separate systems, but the goal is to provide citizens a unified service. (*Ibid*) For example, if a citizen is registered in Pärnu and made his driving license there, it is possible for the citizen to get his driving license from an Estonian Road Administration bureau in Tallinn or via post, because all Estonian Road Administration systems are connected with each other, despite where they are located.

There has also been developed a five-stage model, which captures the whole e-government vision. The new e-government model has web presence, interaction, transaction, transformation and e-democracy stage. (Siau, Long 2005) The model is simple and has the main ideas as Layne and Lee had in their four-stage model. To begin with, web presence phase is the most basic form of electronic government. Government adds basic information on their websites, for instance, contacts, news, office hours, organization mission and vision. (*Ibid*) There is more information and it is more dynamic and has often updates as Layne and Lee's first stage (catalogue). Also, ERA's web page is often updated and there can be found almost all important information that a citizen could need. The interaction phase provides an interaction between citizens and government, for example, e-mails, downloadable forms etc. Third phase is transaction stage, where citizens can interact via online transactions. This stage is similar to Layne and Lee's transaction stage, although it has more modern characteristics and is concentrated on businesses, in addition to citizens. (*Ibid*) ERA has all the characteristics, which describe the interaction stage. The fourth stage, transformation stage, moves towards to transform the way the public sector provides services. (*Ibid*) Transformation phase includes both - vertical and horizontal integration (governmental organizations at different level and governmental organizations or departments in different locations). To reach this goal, governments have to re-engineer their existing services and processes by lowering the bottleneck and stakeholders. (*Ibid*) In the opinion of the author, the vertical and horizontal possibilities of ERA are achievable because some public organizations (i.e. ARK) had been joined in a certain period with ERA. In addition, X-road has made possible the integrations between vertical and horizontal levels. The last stage is e-democracy phase, which is one of the main goals of e-government development. This can be developed with tools, such as online voting, surveys, citizens' involvement, political participations etc. ERA involves citizens by giving new and updated information about their

areas of expertise and creating a safe traffic environment. Citizens can give feedback, which is taken under consideration by ERA.

In conclusion, e-government phases are important to follow. Author brought out two different models from which the last one is more suitable for the Estonian Road Administration, as it is newer and more similar to ERA's development process. Dividing services into phases gives a brief overview for that specific public organization to see where they stand and to act according where they want to be. ERA has developed all five stages, although there is room for further development. ERA stands on the leading position in the e-governmental services.

3.5 Service Dominant Logic

In this theoretical part, the marketing of a service is examined through service dominant logic approach. The goal of marketing is to interact the service provider with a customer. Moreover, service providers can influence by customer's behaviour and value fulfilment. (Grönroos, Gummerus, 2014, 208) There is no need for just creating services. Those services should be focused on the customer, who will be the end user. This means, the user should have the biggest attention. For instance, Estonian Road Administration designed e-services that are user friendly and work mostly without any error. Usually the services, which are customer centric, are the most successful. (Verdegem, Hauttekeete 2008) It has been said "the customer is always a co-producer of value" (Vargo and Lusch, 2004), which means a service should be provided to a customer as a customer needs and wants the service to be. If a service does not meet the customer's expectations, he or she will find a new service provider, who will offer better services. It is more complicated in the public sector, because there is usually one specific service provider. For example, ERA does not have any competitor, who could replace their e-services.

Lusch (2007) has described "marketing-to" approach, which uses 4Ps, in order to sell a product or service to the customer or adapt any specific behaviour. This approach has a long history. It is described by a shortage of supply, which naturally brought good and services for selling to the market. Marketing focused on the aspects needed to close the gaps between the consumption and production. (Lusch 2008, 261) When industrial sectors grew and became fully developed, there

were enough services or goods. Therefore, organizations had to become more market and customer oriented. (*Ibid*, 262) This led to a shift from “marketing-to” perspective to a “marketing-with” approach. (*Ibid*, 265) “Marketing-with” is an approach, where a customer is a partner in the co-creation of value. This approach views customers as active participants, who bring needed skills to the exchange process. This means, marketing is a process where customers are included. (*Ibid*) The organizations learn about their markets and customers and work together with them. For example, feedback is a great tool to understand a customer's needs and desires. Feedback can suggest how the service should be changed or offered. Also, content rich articles give customers extra value. For instance, ERA promoted their e-service usage to be 20% less expensive than going to ERA’s offices. Public sector does not need to sell their services; their goal is to inform citizens about the different possibilities of the e-services that they have developed. Citizens will choose the most convenient way for them. This is also a feedback - if a citizen uses rather bureaus than e-services, and then there is a need to change the e-service usability. Moreover, many customers visit ERA’s website and e-service website specifically because of their content and information (information databases, news, interactive e-services etc.) This also gives an extra value to the customer. (Gummerus 2010, 426) If the website or e-service is not user-friendly, the customer could easily choose another solution, for example visit a bureau. This means, the e-service or website did not create any value for the organization and for the citizen.

Overall, marketing should have a personal approach and should be based on citizen's needs. For instance, if a citizen does not have a driving license; does not care about vehicles or does not own one, the e-mail with an announcement of the possibility to change the driving license through an e-service does not matter and does not create any contact or feeling.

4. CHAPTER IV: METHODOLOGY

The current chapter will describe the main aim of the present research, the main characteristics of the methodologies, expectations, values and shortcomings that will be debated. In addition, the present chapter will specify the main statements about the roles and values in the study based on the literature. Chapter IV is divided into four subsections to help categorizing and represent the essence of this study.

4.1 Empirical Data

This Master's thesis research strategy is a case study, which is based on the Estonian Road Administration statistics and information, which describes, how ERA's e-services have been developed and marketed and used by the citizens. The main purpose of the case study is to analyze the data that has been researched and collected. The case study is an empirical method aimed at investigating specific phenomenon in specific context (Runeson, et.al 2012, 12). The case study includes mixed methods or Methodological Triangulation, which is a combination of different types of data collection methods (i.e. quantitative and qualitative methods). (*Ibid*, 16) Case studies tend to be mostly qualitative, but in this research, both quantitative and qualitative data are combined. The combination of qualitative and quantitative data provide often better understanding of the problem that the study is observing. (*Ibid*, 15) Quantitative data has been used to analyze the statistics and quantitative data has been used while analyzing descriptions, diagrams, and articles that consists of descriptions. This kind of method was chosen, because it gives the most optimized solution. The case study was chosen, because it gives the most detailed overview about the specific organization, its activities, development processes and outputs. In order to prove the hypothesis and answer the research question, ERA's case study is the most accurate information source. Moreover, quantitative analysis was chosen, because the research questions and hypotheses required statistical approach. In addition, qualitative analysis were chosen, because comparing different marketing activities and articles with statistics, gives an answer, if the marketing in public sector is necessary.

Empirical data analysis consists of three different phases: literature overview and analysis; data collection and analysis; and the results of what the author has found. The answers to the research questions are being looked into by using the data collection and analytical processing. The main topic and research question discusses:

- How to decrease public sector spending through increment of e-service usage by implementing marketing in e-governance?

Three sub-research questions support the main topic and the research question:

- How does e-service usage influence the visits to the Estonian Road Administration bureaus?
- How do public sector marketing activities influence e-service usage in ERA's case?
- How does the growth in e-service usage decrease the number of ERA's office visits?

The purpose of the Case Study approach was to define and explain ERA's experience on developing and marketing Estonia's one of the best public sector e-services while at the same time decreasing visits to the bureaus. This current research provides one clear hypothesis, which is following:

- The public sector marketing activities influence ERA's e-service usage percentage growth positively and as a result, the bureaus visits decrease.

According to the available data, ERA's administrative costs should decrease while the trends are continued. There is a need to provide important background information to prove the paper's hypothesis. The introduction, history of ERA, literature overview and theoretical concept chapters will serve the end goal.

4.2 Collection of Data

The collection of data in this Master's thesis is divided into three main sections. First, the theoretical concepts and the literature overview support identifying the core elements of the discussion. Literature about marketing in the public sector and the Case Study, how ERA has

marketed their e-services, was analyzed, in order to provide correct understanding about the necessity of marketing practicability in the public sector. Moreover, this information was necessary to give an overview what ERA has done and how does the activities and history of ERA and Estonian e-service development influenced the research results.

Secondly, to provide the assistance for the literature, a Case Study based data had to be collected, in order to prove the marketing importance and the e-service usage influence to the visits to ERA's bureaus. In this study, the basis of statistical findings were based on the Case Study example of ERA's historical development of e-services.

Thirdly, the quantitative data that ERA shared with the author was used to find efficiency metrics. The quantitative data analysis gave the basis for finding effective indications. The quantitative data included visits to the bureau in 2015 and 2016, the percentages of e-service usage from all ERA's services and a detailed difference in e-service usages from 2014 until 2016, depending on the launch of the e-service. Without this data, it would not be possible to draw conclusions of the increase or decrease of bureau visits and the e-service usage percentage.

The data was mostly collected through Internet (ERA's articles, journals, books, e-mails, presentations) and through a meeting, which took place on 16th of December 2015 with Estonian Road Administration key persons. At that meeting, the main topics were discussed and agreements were made on what data is important to have for the thesis and what kind of data is publicly available. Moreover, the website Station.ee was used to find relevant articles about ERA's e-services. This program allows reaching all media activities year by year (articles, TV news, radio programs, press releases etc) quickly and easily. This program allows filtering the articles by detailed search engine. Around 9000 articles, from 2014 until March 2016, were filtered and 49 topics were found that specifically were promoting ERA's e-services. Articles were launched in different news portals. For instance, almost 200 different portals wrote about ERA's e-service related topics, although there were 49 different main topics. On average, three different news portals wrote about same news. Those findings were important, because it gave an overview about the amount of ERA's public attention.

The academic articles and journals were found from Ebscohost and Google Scholar search engine from October 2015 until April 2016. All the news about ERA's e-services were found

from Station.ee in April 2016; and all the articles were searched from 2014 until March 2016. The meeting with ERA took place on 16. December 2015. Moreover, ERA's Customer Service Manager delivered the bureau visits statistics, e-service usage percentage from all ERA's services and the usage of different ERA's e-services on 11. April 2016. Furthermore, the information about ERA's marketing activities from the end of 2014 until 2016 was gathered between 13 and 17 April 2016 from ERA's Public Relations Department.

The information, which the author asked from Estonian Road Administration:

- ERA's e-service webpage sessions and page views from 2014 until 2016;
- How many users use ERA's e-services, monthly and daily? Daily statistics are interesting to see to find out if would is a trend-line, which would show, what day is the most popular day to use e-services;
- The detailed marketing activities from 2014 until 2015;
- Which mediums and channels were used in marketing ERA's services?
- ERA's office visits per month;
- Administrative costs.

All the information, data, statistics, presentations and documents that were collected from ERA's were in Estonian and therefor they had to be translated into English.

The gathered data was analysed as following:

- ERA's bureau visits, e-service usages were compared in RStudio program, which allows to find easily correlations between different values.
- Collected news and marketing activities were conducted into an excel file, where the data was filtered by months and years (Appendix 4).
- The statistics of different e-service usage, their descriptions and marketing activities were compared, for instance, which activity took place in which month and how much did the e-service usage grow in the same and following months.

4.3 Literature overview and theoretical concepts

The historical background of ERA was assembled by using ERA's yearbooks, newspaper articles and journal articles. The information about ERA's historical background was quite limited and based on a few references, mainly on their own yearbooks and statistics. However, those yearbooks and articles were rich source of information. For instance, ERA's yearbooks took all-important happenings during specific period into account. In addition, the literature about marketing in the public sector was compiled by using journal articles, scientific studies, surveys and newspaper articles. Theoretical concepts about service, e-service and service design are covered in the thesis. It is explained in detail, how e-services have developed from services and how important is to divide e-services' development into phases. E-services are a phenomenon, as they have been around for couple of years, but have been spreading rather quickly. Moreover, how important is service design or service engineering and how does it apply to this study. Marketing in the public sector will give this analysis a framework. Has ERA's case followed the rules of marketing in the public sector or has ERA done something different?

4.4 The characteristics and reliability of the data

All the data that was collected was formal data and provided necessary results for the current study. The data that was collected was enough to have a strong research with concrete answers. The data from ERA and from academic articles and journals are reliable. ERA's data was composed by professionals and leading management of ERA's personnel. Because of the rapid growth in e-service development, Estonian media, professional organizations (i.e. Ziraff), politicians, scholars etc. analyze ERA's e-services. All those aspects insure the reliability of the data. In negative perspective, not all of ERA's necessary information is publicly available and not everything is measured - the available information was limited.

5. CHAPTER V: RESULTS AND DATA FINDINGS

In this section author analyses two main topics. First paragraph is about how does e-service usage of all ERA's services influence the visits to Estonian Road Administration bureaus. Moreover, how does the e-service usage influence the public sector's administrative costs? Should there be the same number of personnel or ERA's bureaus as it was in 2014, or it should be optimized according to the statistics? In the first part of data analysis, the first questions are discussed by using statistics program, where it is possible to generate correlation and regression models. A necessary application software provides data statistics analysis. In the second paragraph author discusses how does public sector marketing activities influence e-service usage in ERA's case. Are the statistics linked to each other and does the change in any statistic influence the other? All ERA's two-year marketing activities are taken into account.

5.1 The Correlation Between E-Service Usage and the Visits to Bureaus

In this data analysis part, the visits to the bureaus and the e-service usage percentage is being compared to the usage of all ERA's services. Firstly, the question, how change in e-service embracement speed affects the visit numbers of bureau, is being analyzed. Secondly, the proportion of e-service percentage of all ERA's services is being separately looked into. Furthermore, the change in ERA's bureau visits is being calculated also separately. Lastly, the data is analyzed, which shows, how change in e-service usage percentage from all ERA's service usage affects the visits to the ERA's bureaus. All statistics are compared by using RStudio program. The author added every e-service usage and bureaus visits monthly data from 2015 until March 2016 into RStudio program. Unfortunately, 2014 data was not available in ERA's database, because not all e-services were ready to be launched in the beginning of 2014. Many e-services were launched in the end of 2014. That is why the statistics are new and 2014 could not be analyzed properly.

Nowadays many services are provided by electronic capabilities such as e-services. In Estonia, the e-services have developed rapidly and the usage of e-services grow year by year. The

purpose of this analysis is to understand, if the visits to ERA’s bureaus have a correlation with e-service usage. For example, if in April the ERA’s e-services have been used more than in March have the visits to ERA’s bureaus in April decreased compared to March. The variables had to be defined in RStudio statistics program to analyze the statistics of the Estonian Road Administration. Then, the monthly percentage of variables were calculated to find the correlation. When correlation is in minus phase (-1 until 0), then if one part, which is being analysed, increases, the other part decreases. When correlation is in plus phase (0 until +1), then if one part changes, then the other changes in the same direction.

Author analysed monthly periods, how change in e-service embracement speed affect the bureaus’ visitation numbers. The strong correlation would be -1 or +1. In this case, the correlation was 0.16, which has minimal statistical dependence.

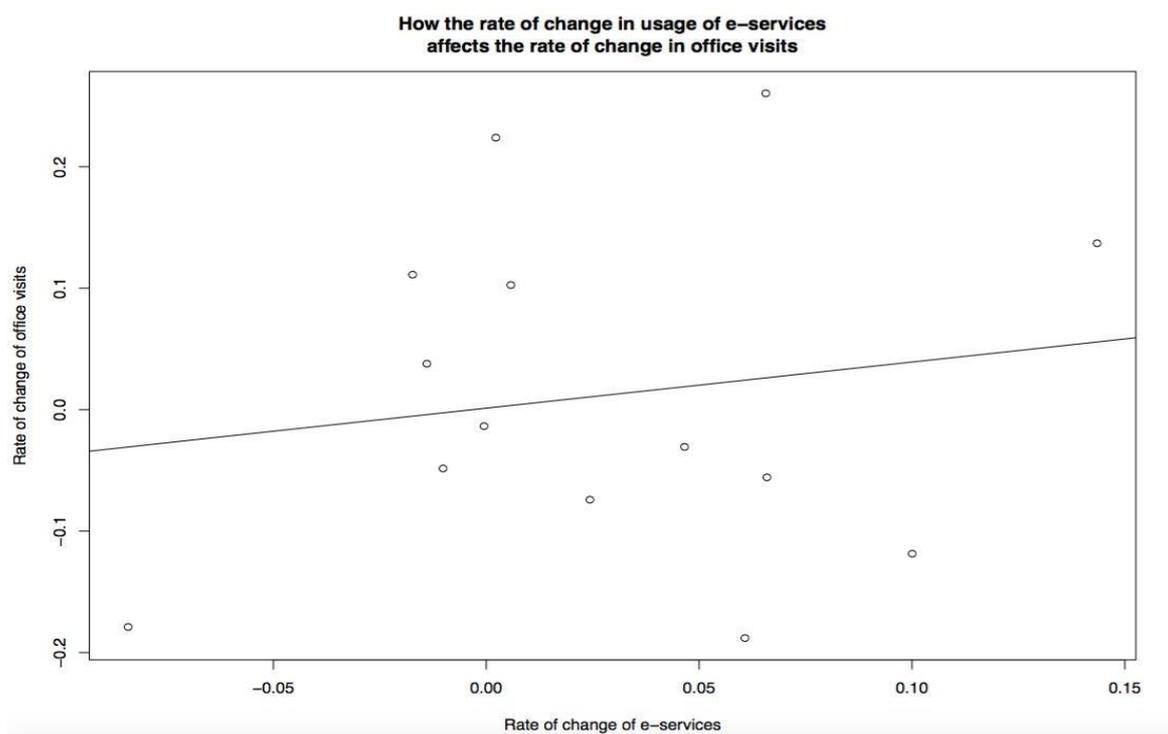


Figure 2. “How change in e-service embracement speed affect the bureaus’ visitation numbers.”

In Figure 2, the small correlation can be seen between the change of e-services and the change of office visits. This correlation shows how e-service usage changes the bureaus visitation numbers. The Figure 2 does not illustrate the growth, but the speed of changes. Correlation is positive - if one part (e-service usage) changes, and then the other part (visits into bureaus) changes.

Correlation alone does not give clear overview, but if the correlation value is compared with the two main points (-1 in negative side and +1 in positive side), it gives clear directions, how strong the connections are. In this case, the connection are not that strong. If the correlation would have been 0, then there would not have been any connection. 0.16 correlation still is something and characterizes the link between two variables. A clear trend can be seen, which shows that e-service usage and bureaus visits affect one another. In conclusion, as the analysis is done with only 15 month statistics (2015 - 2016 March), it is too soon to see the strong correlation between the variables. There is a connection between two variable and it has a positive trend. This means if the e-service usage changes rapidly, then the visits to ERA’s bureaus also changes rapidly. A further analysis should be done after March 2017 to see the two-year difference. Clearly, this would give statistically a much stronger overview.

In the second part, only the proportion of e-service usage out of all ERA's services are being analysed. The data was collected by ERA between January 2015 and March 2016. The current study shows that e-service usage has grown after every month.

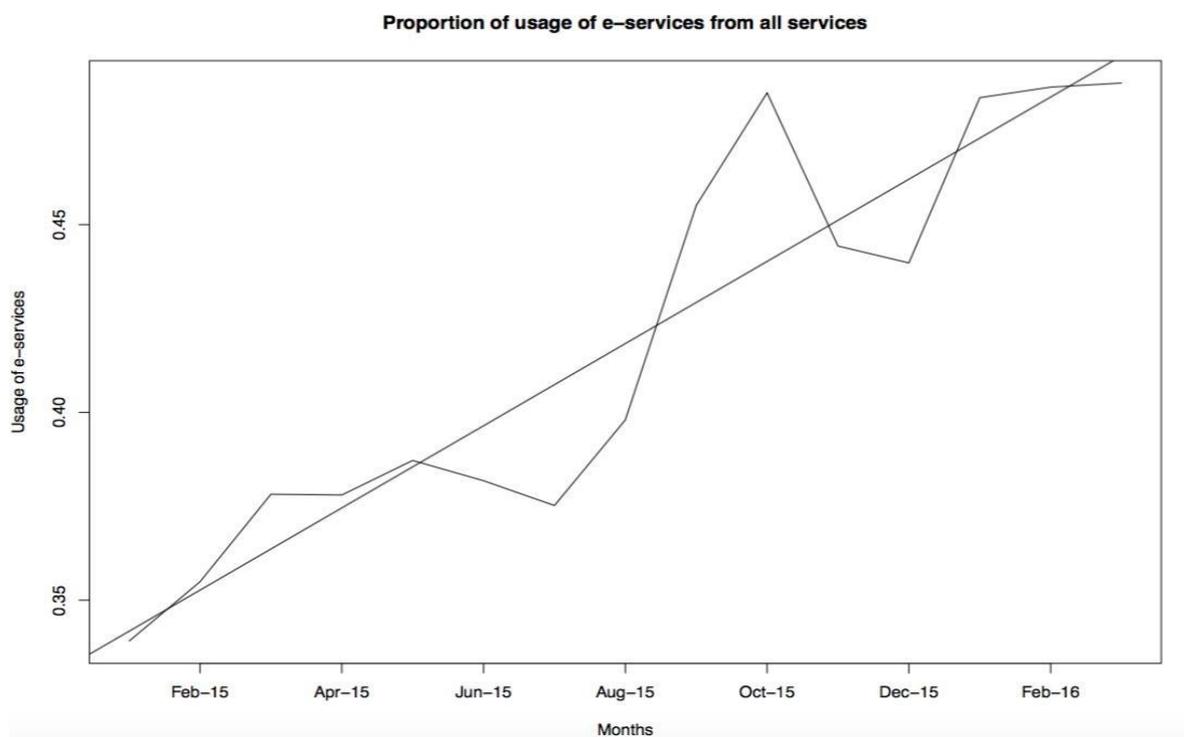


Figure 3. “The proportion of e-service usage out of all services”

From the Figure 3, a statistical connection can be seen in the percentage of the change in the usage of e-services by different months. The trend is positive, which means the usage grows monthly. The average growth in the usage of e-services per month is 1.4%. It is not a rapid growth, but it is quite strong, which means that ERA is doing well in promoting their e-services. Although the citizens do not need ERA's e-services daily, the usage growth is still notable.

In the third part, ERA's visitation numbers were analysed. The data was collected by ERA between January 2015 and March 2016. The study shows that after every passing month the visits to ERA's bureaus had decreased. The bureaus visits are in a downward trend.

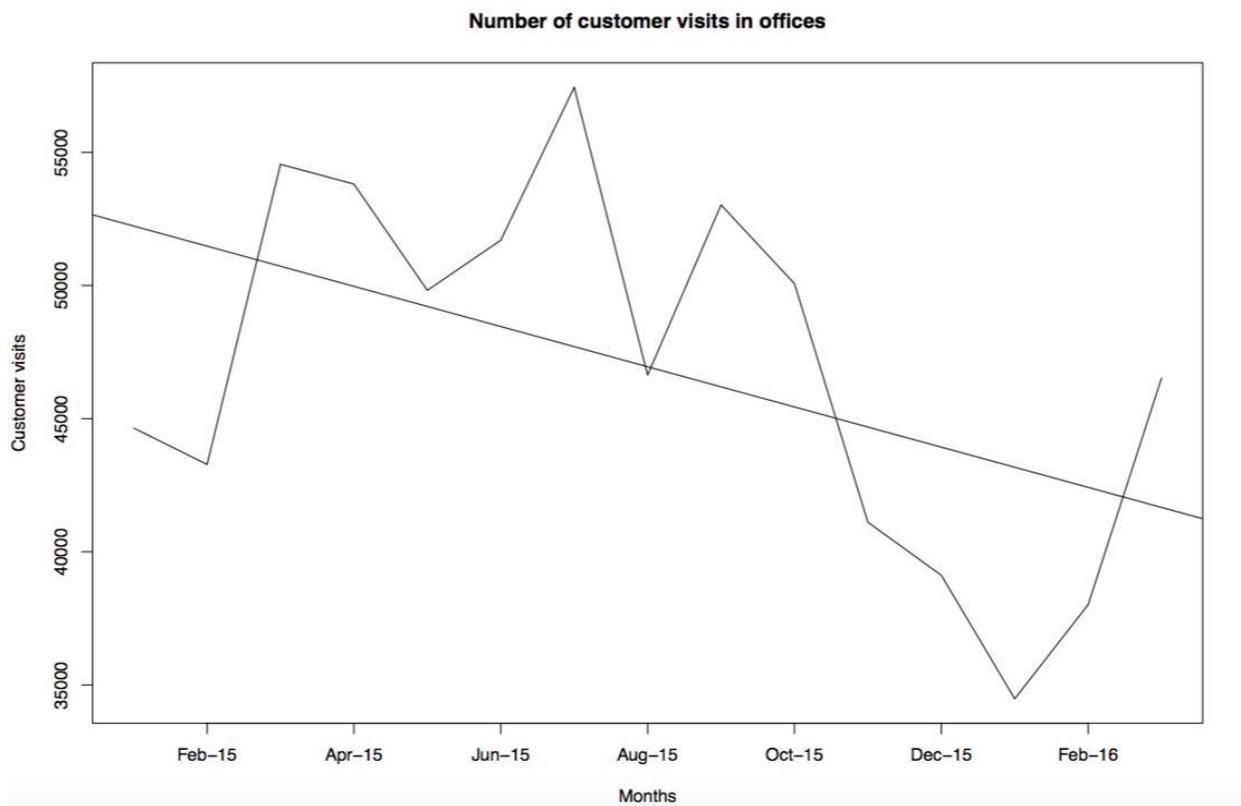


Figure 4. "Number of customer visits to ERA's offices"

In the Figure 4, the overall negative trend can be seen, which means the visits to ERA's offices are decreasing by 1.03% per month. The number of ERA's office visitors decreased by 12% within a year (2015). Between February and March 2015, there was surge in visits. The surge is similar in 2016, but was slightly smaller comparing to 2015. The extreme growth can be

explained with seasonal changes, which take place in the same period. The exponential growth mixes the statistics, which is why the fourth part of the study concludes and takes into account the average annual performance.

In the final part, the calculation about the effect of e-services on customer visits to the offices was made. The study shows that e-service usage growth brings along decrease in bureau visits.

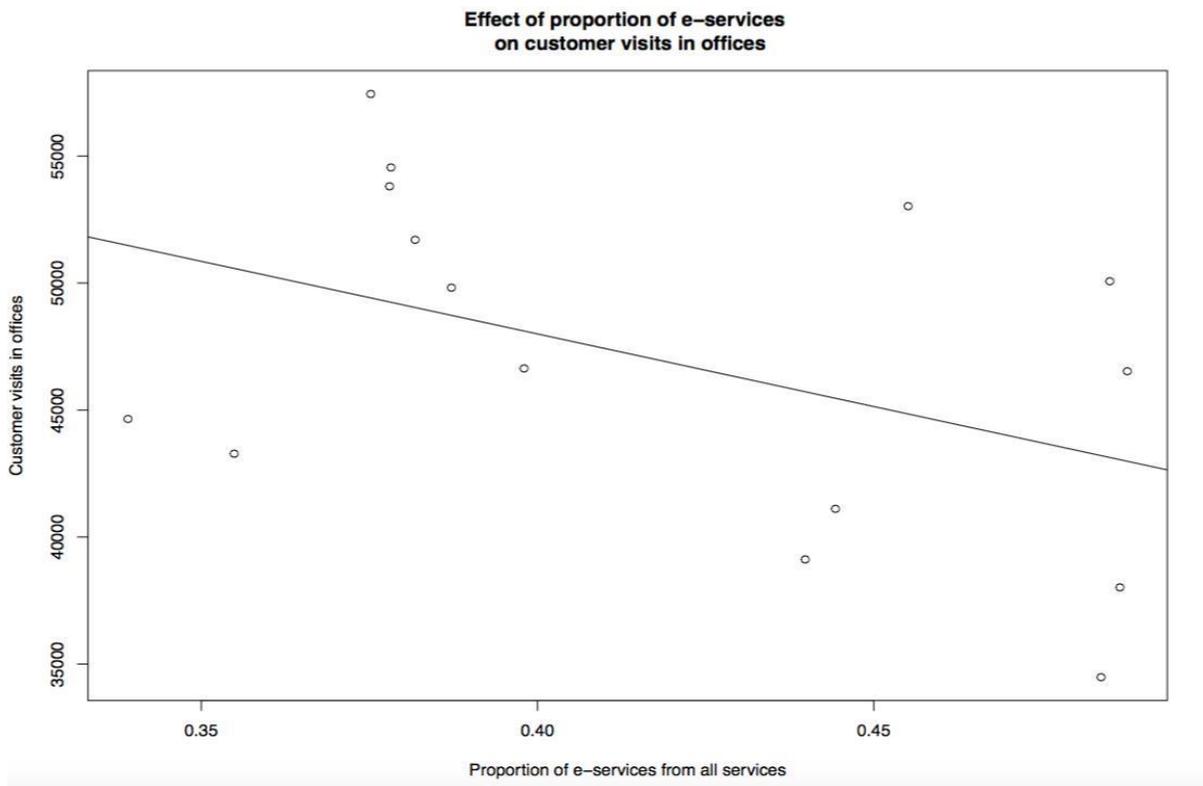


Figure 5. “The effect of e-services on customer visits to offices”

From the Figure 5, the correlation between two variables, e-service usage and visits to the bureaus are quite strong. The correlation coefficient is -0.44, which has a strong impact and connection between two variables, e-service usage and customer visits to offices. When analyzing the statistics in a longer period, it does not have a strong impact in correlation index. If the e-service usage out of all ERA’s services grows monthly by 1%, then the ERA’s office visitor number decrease according to the model used in this research by 572 clients per month. This is quite a big number, which shows there is a strong correlation and connection between two variables. It means, using e-services could decrease public sector spending’s and offices

workforce. For instance, registration for first driving license can take 10 minutes of public officials time. Using e-service can save almost 308 000 minutes of official's time per year. (Ziraff 2013, 96) This equals around 32 month of work. This will decrease public sector spending's in the long run.

5.1.1 Conclusion

In conclusion, the bureaus visitation number and e-service usage is strongly connected with one another. The trend is negative annually, which means as more e-services out of all services are used, the less bureau visits there are. The correlation between the two variables, e-service usage growth and the ERA's bureau visits decline, is strong – 0.44. In the correlation, the p-value is statistically significant. The hypothesis is positive - the more citizens use e-services the less citizens visit the Estonian Road Administration offices and the smaller are the lines in bureaus. ERA has capabilities to decrease the number of officials by 50 work stations. In 2015, ERA's personal consisted of 545 people, although all positions were not fully filled. (Sauki 2015) This study shows that filling those positions is not necessary. Nowadays many services are provided by electronic capabilities such as e-services. This means, if ERA keeps increasing the e-service usage year by year, it is possible to save on human resource, because the lines in the bureaus will be shorter. For instance, if the e-service usage grows 1% per month, then the visits to ERA's offices will decrease by 572 clients per month. This means, the public sector spending's and the offices workforce can be decreased. For instance, registration for first driving license can take 10 minutes of public official's time. Using e-service can save almost 308 000 minutes of official's time per year. (Ziraff 2013, 96) This equals around 32 month of work. This will decrease public sector spending's in the long run. The decrease in human resource can increase the salaries of ERA's personnel. (Sauki 2015)

5.2 How does public sector marketing activities influence e-service usage, as an example of ERA's case?

In this chapter, the ERA's case is analyzed - what have they done to promote their new e-services? Data was collected from ERA's Public Relations department (all marketing activities that they had done from 2014 until 2016 March) and from Station.ee, which gives a detailed overview of media publications (articles, interviews, TV news, radio programs etc.). The data is

analyzed by comparison method. On the one hand, this means the marketing activities are filtered by specific period. On the other hand, the e-service usage percentage is viewed (Appendix 1 and 2) - did the marketing activity influence rapidly the e-service usage in the same month or next month? Is there a direct connection between marketing activities and the growth in e-service usage? Different ERA's e-services are characterized and marketing activities are being analyzed:

- driving license exchange;
- ownership transfer;
- the drivers instructor licenses;
- applying for an instructor's certificate;
- temporary removal from register;
- registration for driving and theory exam.

5.2.1 Driving License Exchange

Drivers have to have a driving license, which proves the ability, knowledge and health condition to drive a vehicle. Driving license and driving privileges are granted to people, who live permanently in Estonia (including foreigners), who have stayed at least 185 days in Estonia and have registered their residence in Estonian Population Register. (Eesti.ee 2016) Vehicle drivers must pass a medical examination every 10 years. A customer must submit an application and pay the state fee to exchange the driving license. The first driving license is applicable for 2 years. After changing the first driving license, the next license is applicable for the next 10 years. (Eesti.ee 2016) Driving license can be changed in the bureaus and in e-service portal. There are two possibilities to receive the driving license - receiving it with a simple letter or going to ERA's service bureau.

Exchange of the first driving license in e-service portal was tracked by ERA from March 2015, when the usage of exchange of the first driving license in e-service portal grew up to 45.77%. At the end of 2015, the percentage grew up to 56.35%, which makes almost a 24% growth from March until December 2015. This service was available before only in ERA's offices. Exchange of the first driving license got media attention in February 2015. More than 10 different news

portals wrote about how comfortable is to exchange the first driving license online. One of the triggers, which led the people to use more e-services, was a 20% discount on state fees. Moreover, at the beginning of 2015 ERA had started sending out emails to customers with notifications about upcoming procedures in the traffic register. In addition, the communication about the exchange of the first driving license was strong in March 2015 as well. In April and May media coverage was minimum. There is a strong link between the e-service usage and the first marketing activity in February and March, because the usage grew from zero to 45.77%. After March, the media coverage about the exchange of the first driving license decreased rapidly. From April until June it grew quite slowly and even a small decrease happened. After July, the usage grew again. (Appendix 2 table 1) From March 2016, a reminder was sent to clients about the expiration of the first driving license. Those e-mails included a strong call to action, which was focused on guiding the clients to do the necessary procedures in e-service. ERA has 68-73% e-mail addresses from all of their e-service users that can be used for sending out notifications by e-mail. The average open rate was 48-63%, which is a good result according to today's information dense society. Also, ERA's Public Relation Department states, there is a correlation between the headline of the e-mail and the open rate. To conclude, in the example above, the trend between the usage of an e-service and marketing activities helped strongly to reach the e-service fuller potential.

The exchange of driving license was launched electronically in September 2014. Over 15 different media portals published articles about the new e-service. For instance, the articles were about the new e-service; the driving license can be ordered by post; over 15 000 drivers have to change their licenses, etc. (Einmann, 2014) All articles invited citizens to visit ERA's e-service portal and do their procedures there. Also, marketing activities were done. For instance, adverts and promoted content articles were published in Whatcar and Top Gear. Marketing was also done in service offices, where banners, ads and stickers on the service counters could be found. Furthermore, web banners were targeted to car topics related web portals, as auto24.ee, topgear.ee and whatcar.ee. All of those web banners were renewed, when the new e-services came out. This means, the latest news were highlighted by banner ads. Banners and flyers were used in roadworthiness testing places, car schools, specific car showrooms, used car showrooms etc. ERA communicated with different partners, who could add ERA's information to their newsletters or uploaded banners on their website. ERA also sent direct e-mails to clients, who needed to change soon their driving license. In autumn 2014, ERA created videos that explained

how e-services work and how to use some of the e-services. For example, exchanging the driving license in ERA's e-service portal, was watched over 3000 times, although they did not share those videos in mass or bought media (banners, ads in web) (Road Administration 2015a). Lastly, ERA used a link-banner in a car related portal auto24, which communicated the message about the 20% discount fee. In September 2014, when the e-service was launched, the usage of this e-service grew up to 14%. In October 2014, the usage percentage grew up to 26% and in December up to 32%. (Appendix 2, table 1) In October there were more than 3 articles in the media about how ordering the driving license by post gathers popularity. (Kaukvere 2014) The main topics in 2014 media were about the exchange-driving license. This could be the reason why the usage of exchanging the driving license in e-service portal grew rapidly. The usage percentage grew in 2014 around 134%. (Appendix 2, table 1) In the beginning of 2015, many media channels talked about the exchange of the first driving license, but also covered the overall driving license change as well. In April 2015, the usage growth trend slowed down. The usage percentage in 2015 grew by 51%. (Appendix 2, table 1) The average growth per month in 2015 was 4%. There has been done a lot of marketing and because of informing the people, this service is one of the most popular e-service. There is no need for extra marketing activities, because a high percentage of citizens use exchange of the driving license as an e-service. The e-mail notifications are necessary for those customers, who soon will need to change their driving license, as a reminder. This approach is personal and essential, as many citizens would not remember their license expiry date. In conclusion, the usage of e-service in this context and the marketing activities, are strongly linked to each other. This e-service usage has room for growth.

5.2.2 Ownership Transfer

The vehicle's owner change was one of the first ERA's e-service, which was launched with ERA's new e-service portal. Changing the owner of a vehicle in web excludes the possibility of a new car owner leaving fines for the car in the name of the last owner and creating parking or traffic fines in the name of the last owner. At the same time, it is possible to check backgrounds of different cars when planning to buy a car. When doing a background check, VIN code is needed. This helps to prevent a situation where somebody wants to falsify the VIN code. Moreover, it is possible to see the car's mileage history, which eliminates the possibility of anomalies, when the mileage has been winded back. (Whatcar 2014) The owner's change in e-service and vehicles background check was communicated in media from January to April 2014.

In January, more than 16 different articles appeared in Estonian media, which wrote about the launch of ERA's new e-service portal; the possibilities to save money while doing the procedures in e-service; to check the vehicle's background information and last but not least; change the owner of a vehicle online. In February over five articles were written about the launch of ERA's new e-service portal. In March, there were more than three articles about the renewed information of vehicles background check and two articles about the "e-coup" in the traffic registry portal. Those "e-coup" articles informed again about the possibility to change the vehicle's owner online and check the background of the vehicle. Furthermore, May 2014 was full with articles about ERA's e-service portal launch. For instance, topics about the e-health certificate; "e-coup" in the traffic registry portal; user story about the comfortable usage of ERA's e-services; driving license can be ordered via post; how to buy a used car smartly etc. During those months, banners, flyers, content articles, stickers, direct e-mails etc were in Whatcar, auto24, Top Gear, roadworthiness testing places, car schools, specific car showrooms, used car showrooms etc. Moreover, a video clip was made, which introduced ERA's vehicle's owner change e-service and the steps how to finish the owner changing process. This video has been viewed over 2198 times from February 2015. (Road Administration 2015b) The video was simple and understandable, which made the owner's change easy to understand and to follow the steps in the correct order. In conclusion, the marketing activities were outstanding. When reviewing the statistics, the usage of the vehicle's owner change is not in correlation with the marketing activities. In January 2014, the usage was 2.61%. (Appendix 2, table 2) The average growth was slow while taking into account three last years. In 2014, the usage grew from 2.61% up to 13.07% and its growth was 400% in this year. In 2015, the usage grew from 13.77% up to 18.99%, which was a 38% growth. In the beginning of 2016, the percentage had decreased. In conclusion, the growth of this e-service has been slow. Comparing the growth with the marketing activities, it should be much rapid. It is a kind of e-service, which needs more trust, because it influences three parties - the one who sells a vehicle, the one who buys a vehicle and the authority. Because there are more citizens involved, it can be one reason why the e-solution of this service has not skyrocketed. The citizens might not trust the system yet and because of it, they will visit the ERA's office instead. Lastly, the promotion of this e-service should be continued and articles and other media outputs should be about the benefits and trustworthiness of changing the owner in web. This e-service has potential to grow.

5.2.3 Applying for an Instructor's Certificate

The main purpose of having a driving instructor license is to provide driving school students or graduates with more driving practice, to become a better driver. The instructor has to be experienced and a role model in driving. (Road Administration 2016a) From July 2015, it is possible to apply the license from ERA's e-service portal. According to Station website's data, over seven different news portals wrote about the online instructor license application. Moreover, during July and August 2015 ERA visited many open-air festivals, such as American Car Show in Haapsalu, Rally Estonia in Tartu, Estonian Road Museum birthday festival and Motofest in Kiviõli. There were many events, where ERA was present and promoting their e-service possibilities. On average, thousands of citizens, from Estonia and from other countries, visited those events. Furthermore, many online marketing activities were done, such as banners, content promoting articles, flyers on partners websites (Auto24, Whatcar, Top Gear) and in bureaus and partners offices (roadworthiness test places, car schools, specific car showrooms, used car showrooms etc). Direct e-mails and notifications were also sent to targeted e-mail addresses. The statistics showed rapid growth in driver's instructor license application submissions in web in July and August 2015. In July the e-service usage was 27.1% and in August 55.26%. In October, it grew up to 62.15% and in December 2015 it was already 69.01%. (Appendix 2, table 2) In conclusion, many marketing activities were done in July and August 2015, which helped directly to increase the embracement of this e-service. The driver's instructor license service had rapid growth only within few month. Some marketing activities should be continued to inform those citizens, who might think about having a driver's instructor license, but still are not informed about the e-service solution.

5.2.4 Applying Provisional Driving License

At least an 18 years old citizen, who has successfully completed initial training in driving school and does not have any traffic penalties, can apply the provisional driving license from ERA's e-service. (Road Administration 2015b) Applying was in ERA's e-services from June 2015. In the first month, the usage grew up to 19.58% and by next month, it was already 32.78%. (Appendix 2, table 1) At end of 2015, the e-service usage was up to 47.05%. It has had a growing trend. In March 2016, the usage was 49.09%. Press and marketing activities were extremely active in the summer of 2015. According to Station website's data, over six articles were published in media

about the application for the provisional driving license and the online possibility of registration for exams. In this time, many articles about overall ERA's e-services were published, that supported the promotion of e-service usage. In addition, banners, flyers and content articles were published in partners' webpages. Those materials were changed after new information and e-services were launched. Moreover, customer service in ERA's offices directed customers also to use e-services. 2015 summer was full of ERA's e-service portal promotion. This definitely affected directly the new e-service usage growth.

5.2.5 Temporary Removal from Register

The main purpose of the temporary removal from registry is to suspend the vehicle's ownership temporarily (the vehicle is not used in traffic). The reason for this is for instance, the vehicle is not used in some period of time or the citizen does not want to fulfil the obligations for the vehicle. During temporary removal, the responsibilities (i.e. vehicle insurance, heavy vehicle tax etc) do not apply for the owner of the vehicle. The period for the temporary removal can vary from one month up to 24 month. (Road Administration 2015c) This service is free and does not include any state fees. There are many articles about the dangers of the compulsory insurance. This means if a citizen has not removed (or temporary deleted) its vehicle from the registry, the compulsory insurance will apply after twelve-month period. (Veski 2015) Those kind of articles could be found from the media almost every month in 2015, especially in April, June, July and September. ERA made also marketing activities, which included targeted direct communication, information leaflets, and posters in offices and partners' offices. Also, an informative video was made about this service. This video has more than 1000 views until April 2016. (Road Administration 2015c) This service was available in e-service portal from 2014. (Appendix 2, table 2) In 2014, the growth was stable until April, when the usage was 60.4%, and then it grew rapidly up to 72.70%. A new law came into force in October 2014. It was about the compulsory insurance implementation, which meant that after the enforcement of the new law, all vehicles, which were in the target group had to have a compulsory insurance. (Iizi 2014) A change can be seen in the graphic (Appendix 2, table 2), from August to October, when the usage grew from 66.6% up to 78.94%. The increase of the e-service usage before October can be linked directly to the new law. In 2015, the usage was stable - around 83 % in the beginning of year 2015 down to 81% by the end of 2015. In conclusion, a lot of informative articles and other marketing activities were made to promote the temporary removal e-service. This e-service was successful.

The success of this e-service can be described by the usage percentage from all ERA's services, which was in March 2016 almost 89%.

5.2.6 The Registration for Driving and Theory Exam

The registration for driving and theory exams started in e-service portal in the beginning of 2015. Citizens could register themselves online instead of going to ERA's offices. The average usage of those e-services are extremely low. For instance, the registration for the theory exam started in January 2015 with a percentage rise up to 21.14%. In December 2014, the usage percentage was 26.37%, which is really slow increase. (Appendix 2, table 1) Marketing activities to promote this message were sufficient. For instance, ERA's office administration's introduced clients how to use e-services. Moreover, there was a communication between the driving schools (flyers, information leaflets, banners). Furthermore, ERA sent direct e-mails to citizens, who started driving schools (B category), to use e-service for exam registration (from November 2015). Analyzing the media articles from Station website, there were only 6 articles in June 2015, which included the theory and driving exam registration information. From June to August 2015 there was a slight increase in the usage of exam registration online service, from 24.55% up to 28.94%, still the usage is low. Online driving exam registrations grew more than theory exam registrations. This kind of e-service has full potential to grow, because most of the new drivers are from the younger generation, who use the Internet daily. The Internet usage between the ages 65-74 was 54% in a 2015 survey. (Eesti Päevaleht 2015) In conclusion, there were more than 6 articles in the media and quite many activities done in marketing field, but the usage grew really slowly. Marketing did not work that well as it should have worked, although after November 2015 personal e-mails the usage grew a little bit.

5.2.7 Conclusion

In this section, the author analyzed ERA's e-service usage percentage and ERA's marketing activities. All marketing activities were gathered from ERA's Public Relations Office, Customer Service Office and from Station.ee, which gave an overview of the media articles. The author analyzed ERA's six different e-service - how their usage increased or decreased; how many articles were about the services in media, which marketing activities ERA in this period did?

Almost every e-service had a strong connection with marketing and press activities. Most marketing activities were:

- Direct communication via e-mail, which notified the citizen, if something has to be done (changing the driving license etc.);
- Information newsletters, where new information could be found about e-service opportunities. ERA has 68-73% e-mail addresses from all their clients. The e-mail is sent successfully for 93-96% of e-mail addresses and the open rate is strong 48-63%, which depends on the content.
- Banners, leaflets, flyers, print ads, content articles and other marketing tools in ERA's partners' webpages (Auto24, Whatcar, Top Gear), partners' offices (roadworthiness testing places, car schools, specific car showrooms, used car showrooms etc.);
- ERA's offices - banners, flyers, leaflets, stickers and bureaus computers and also notified customer service (client service was informed about the new e-services, how to use them by the citizens)
- Open-air summer festivals and other summer events - during July and August 2015 ERA visited many open air festivals, such as American Car Show in Haapsalu, Rally Estonia in Tartu, Estonian Road Museum birthday festival and Motofest in Kiviõli. ERA was present with their tent and promoted their e-service possibilities. Those events were visited by thousands of citizens from Estonia and also from other countries;
- Tutorial videos were made - how to use specific e-service. They can be found on ERA's web page and on Youtube. Also, those videos were shown in bureaus and open air festivals;
- PR articles and news - while using Station.ee webpage, there 200 articles were around about ERA's e-services from 2014 until March 2016.

Marketing e-services is important and it helps to inform citizens about the new and more comfortable solutions that makes their lives easier and decreases the workflow in the bureaus. ERA's case shows that there are no need for big mass campaigns. ERA's services are quite specific and usually people do not use them daily. It is important to stay in the picture year after year, because the usage of e-services have a great potential to grow even more. ERA has found a well working way to promote their e-services. Most of them do not need major budgets, although the production and design of the marketing tools (banners, leaflets, video clips etc) are expensive

and definitely need a considerable budget. Moreover, there can be bought small amount of media (Facebook ads, Google ads, and Google AdWords), which are cheaper and cost only as much as people will click on them. This will increase ERA's e-services top of mind awareness - maybe the person does not need the service on a certain day, but when he needs it he has seen some advert somewhere and knows, where to look. Moreover, e-mail marketing plays a key role in promoting e-services. Targeted e-mails are essential for specific target groups. For example, people who will have to exchange their expired driving license. The person can relate to this topic and it is more likely to use the e-services after seeing the email, rather than going into the bureau. Marketing increases the e-service usage, but it has to be smart and cost-efficient. Example of ERA, there is no direct need for mass media campaigns, when it is possible to target the right audience with other means.

6. CHAPTER VI: ANALYSIS AND DISCUSSION

In the final part of the thesis, the author will discuss the results of the research, and give the answers to the research questions, which were raised in the beginning of these theses. In the end of this current section, recommendation and further research, topics are raised. In this thesis, one clear hypothesis was raised, which is following:

- The public sector marketing activities influence ERA's e-service usage percentage growth positively and as a result, the bureaus visits decrease.

To prove this hypotheses, the main research question is asked, how to decrease public sector spending through the increment of e-services usage by implementing marketing in e-governance? To answer the main research question and to prove those hypotheses, the following sub questions were asked:

- How does the e-service usage influence the visits to the Estonian Road Administration bureaus?
- How does public sector marketing activities influence e-service usage in ERA's case?
- How does the growth in e-service usage decrease the number of ERA's office visits, which in turn decreases the lines in the bureaus, and human resource, who have to offer ERA's services and do administrative activities?

The main purpose of this paper was to analyze ERA's Case Study and to understand how important the public service marketing is. More closely to see, if marketing influences the usage of e-services and in turn, does it affect the ERA's office workload? The topic was chosen, because ERA has launched impressive e-services and there has been done many marketing activities. It took only 2 years to reach higher level of e-service usage. This success story needed a closer look and understanding, how different sides and activities interact and influence each other. For instance, has ERA's case followed the rules of marketing in the public sector or has ERA done something different? Does marketing help to increase the e-service usage? Moreover, is it necessary for public sector to use marketing tools and strategies?

As there were several topics in this paper, this current section will be divided into four subsection, to give better comprehensive overview about the findings of the analyze part. First of all, the conclusion of ERA's data analysis will be looked separately. Secondly, the theoretical aspects will be compared with the empirical data. Moreover, the research questions will be answered and the hypotheses will be proven. To sum up this section, the recommendations and further research is proposed.

6.1 Conclusion from Data Analysis

In the first part of data analyses, the e-service usage percentage of all ERA's services were compared with ERA's bureaus visits. Furthermore, the questions were answered, how does the e-service usage influence the public sectors administrative costs? The research brought out, the bureaus visitation number and e-service usage are strongly connected with one another. The trend is negative, which means, the more e-services are used, the less citizens visit the bureaus. The correlation between these two variables, e-service usage growth and the ERA's bureau visits decline, is strong, -0.44 . The hypothesis is positive, which declares, the more citizens use e-services the less citizens visit the ERA's offices.

In the second chapter, author discussed how does public sector marketing activities based on ERA's case, influence the e-service usage. Moreover, were the statistics linked to each other and did the change in any statistic influence the other? All ERA's two-year marketing activities were taken into account. Almost every e-service had a strong connection with marketing and press activities. For instance, most marketing activities were: direct communication by email; information newsletters, banner ads, leaflets, print ads, content articles; ERA's offices were full of e-service promotion information; ERA's management visited open air festivals with their promotion tent; tutorial videos how to use e-services were made and promoted; and last but not least, almost 200 articles were published in media. Six different ERA's e-services were analyzed. This analysis brought out the fact, that marketing e-services is important. Marketing public e-services helps to inform citizens about the new and more comfortable solutions, which make their lives easier and decreases the workflow in the bureaus. ERA's services are quite specific and usually people do not use them daily. It is important to stay in the picture year after year, because the usage of e-services have a great potential to grow even more. ERA has found a well working way to promote their e-services. Moreover, e-mail marketing plays a key role in

promoting e-services. Targeted e-mails are essential for specific target groups. Marketing increases the e-service usage, but it has to be smart and cost-efficient. As an example of ERA, there is no direct need for mass media campaigns, when it is possible to target the right audience with other means.

6.2 Theoretical Aspects

In this subsection, theoretical approaches are related to the analyses. The first theoretical approach, which was used in this current paper, was socio-technical approach. Socio-technical concept studies the interaction between technology and people. As this concept claims, that social and technical factors depend on one another, it was an important approach to use for ERA's case as well. The analysis showed, the technological and social factors play an important part in the usage of e-services or visiting the bureaus. If e-services are user-friendly, easy to use and make people's lives more comfortable, for instance, citizens do not have to visit physically ERA's bureaus, instead they can make their important decisions and activities online, then the technical factor in e-services are adapted quicker. Still, not all e-services were taken into use so well as others. Is the reason in the complexity of the special e-service process or in something else — from the data collected, the answer is not clear. Although, the e-service steps how to use them, were described very detailed in tutorial videos. In addition, the office staff were trained to teach citizens, who come into the bureau office, how services can be used online. For some citizens, the usage of technology might not be as obvious as it is for a large number of Estonians. According to this reason, there should be done extra guiding according to specific e-service, that are not used so highly than the others, in order to make the e-service usage easier.

Secondly, the terms 'service' and 'e-service' were explained, in order to understand what ERA's e-services mean and what are their goal. E-service concept can be described from two perspectives — electronic and service perspective. ERA's e-services are electronic, which means they are produced and controlled by information technology and as they are services, they can be characterized as a dynamic process, which creates an extra value for the user. Another perspective divides e-services by its availability and ownership into public and private. ERA's e-services are available for all citizens and owned by the Estonian Road Administration, which is managed by the Ministry of Economic Affairs and Communication. Moreover, e-services must

be simple in terms of language, design, technical capabilities and in terms of the structural logic of its functionalities.

In the third part, two e-government stage models were compared. First of all, the four stage growth model as the name says, consists of four cycles. The five-stage growth model in contrast has similar cycles, but is newer and more innovative. Both models were suitable for ERA, although the last one turned out to be more suitable for the ERA, as it is newer and more similar to ERA's development process. The stages of e-government service approach is necessary for this research, because it divides services into phases and gives a brief overview for that specific public organisation to see where they stand and to act according where they want to be. ERA has developed all five stages, although there is room for further development. This approach showed that ERA stands on the leading position in the e-governmental services.

In the fourth part of the theoretical concepts, the service design is being described and connected with ERA's experience. Service design theory gives an overview how to build an effective e-service. What would be the brief steps, in order to have successful e-services? When designing a service, service designers should communicate with all stakeholders (governmental officials, customers, employees), to understand their ways of thinking and their ideas on what an ideal service experience would look like. (Shuman, 2014) In ERA's case, there was a clear need for developing e-services. Estonian Road Administration had the willpower to make a change in their service offering. The organization was ready and majority of the citizens were ready to start using the e-services. ERA's management supported clearly the development of its e-services. (Ziraff 2014, 25) While starting to develop a new e-service, it is necessary to follow basic steps, which result in a good e-service. It is extremely important to have the logic of the environmental information architecture – the way information and its structure has been built, connected to other structures and made available to the customer. Public sector e-services have to follow strict rules and standards regarding to usability, navigation and design. For instance, Estonian public sector uses WCAG2.03 AA framework, which requires using already existing and properly working web solutions. ERA is a good example of a public organization, which uses standardized login and other specific architecture frameworks. (Ziraff, 2014) To sum up, service design approach gives an overview, how services should be conducted, in order to be successful among users.

Last but not least, the service dominant logic approach was used, which highlighted the value created by the customer. This means, the service should be developed together with the end-user, in order to meet customers' requirements. ERA's case study shows, that they have used user centric approach while offering the services, which would create an extra value for the user. All ERA's e-services were not launched at the same time. From the perspective of service dominant logic approach, it was a right decision not to launch them all in the same time, because different services take time to be fully developed before going live. ERA did not launch any pending e-services, they launched full versions, which were tested before going live. Moreover, service dominant approach was described as a "marketing-with" approach. It means, the customer is an active participant and the value is created for the end user. In a marketing perspective, it means ERA's marketing communication included one important trigger, which was less expensive state fee. When citizen uses ERA's e-services, the state fee is 20% less expensive. This was a good communication decision, because it created an extra value for the end user.

6.3 Research Questions and the Hypothesis

To answer the main research question, how to decrease public sector spending through the increment of e-service usage by implementing marketing in e-governance, the following sub-questions were asked:

- How does the e-service usage influence the visits to the Estonian Road Administration bureaus?
- How does public sector marketing activities influence e-service usage in ERA's case?
- How does the growth in e-service usage decrease the number of ERA's office visits, which in turn decreases the lines in the bureaus, and human resource, who have to offer ERA's services and do administrative activities?

First, a small correlation could be seen between the change of an e-service usage and the change of office visits. This means if the e-service usage changes rapidly, then the visits to ERA's bureaus also changes rapidly. Furthermore, the e-service usage grows monthly. The average increase in the usage of e-services per month is 1.4%. It is not a rapid increase, but it is quite strong, which means, ERA is doing well in promoting their e-services. In addition, the visits to the ERA's offices are decreasing by 1.03% per month. For instance, the ERA's office visitors

decreased by 12% within one year (2015). Answering to the first sub-question, the correlation between e-service usage and visits to the bureaus are quite strong. If the e-service usage increases by 1% per month, the ERA's office visitor number decreases by 572 clients per month. It means, answering to the third sub-question, using e-services could decrease public sector spending's and offices workforce. For instance, registration for first driving license can take 10 minutes of public official's time. Using e-service can save almost 308 000 minutes of official's time per year. (Ziraff 2013, 96) This equals around 32 month of work. This will decrease public sector spending's in the long run.

Second sub-question, how does public sector marketing activities influence e-service usage in ERA's case can be answered following: all ERA's e-services, which were analyzed in the previous data analysis section (driving license exchange, ownership transfer, the drivers instructor licenses, applying for an instructor's certificate, temporary removal from register, registration for driving and theory exam). Almost all had a strong connection with marketing and press activities. It was clear; the e-service marketing plays an important role while developing a successful e-service. Marketing helps to inform citizens about new solutions, which makes their lives easier and in turn, decrease the workflow in the bureaus.

To conclude the main research question, the analysis showed, it is important to implement marketing in the public sector and in e-governance. Marketing e-services helps to increase the e-service usage percentage from all services and in turn decreases public sector spending in a long run. This current research provides one main hypotheses, which is proven by the answers of research questions. The public sector marketing activities influence ERA's e-service usage percentage growth positively and as a result, the bureaus visits decrease. This argument is correct. The public sector marketing activities influence positively ERA's e-service usage. Moreover, if the e-service usage increases by 1% per month, the ERA's office visitor number decreases by 572 clients per month.

7. CONCLUSION

This current research, how to decrease public sector spending's through the increment of e-service usage by implementing marketing in e-governance, on the example of the Road Administration case study, gives an overview about the important steps, which support the main argument and research questions. A small state, like Estonia, has to provide effective services, but at the same time workforce is declining. It has led to a paradox, where a state should be thinner, but at the same time all services should be delivered to citizens effectively.

The main objectives of the thesis were to examine Estonian Road Administration e-services, their development, promotion strategies and their e-service usage. Further on, to analyse ERA's case study, its statistics and available information. This current study explained how it is possible to increase the e-service usage, while decreasing ERA's office visits by implementing marketing activities. ERA's case study provided a valuable viewpoint, which could be interpreted into other public institutions or even other countries context, whose goal is to develop their e-services and promote them among citizens. The aim of this thesis was to find out, is there a correlation between the increase in ERA's e-service usage and the decrease in ERA's bureau visits. Moreover, did marketing activities influence the growth of ERA's e-service usage percentage from all ERA's services? Last, but not least, did the increase in e-service usage decrease the ERA's office visits, which in turn could decrease the lines and workload at the bureaus.

The literature overview and theoretical concepts gave this paper a structural framework, through which the research was observed. Historical chapter and literature overview gave the background knowledge for the reader to understand the whole concept of this thesis. For instance, how e-services have developed in Estonia; what kind of a public institution is the Estonian Road Administration; what functionalities, history and development process has ERA had. Theoretical approach gives a general overview and understanding of the topic.

The theoretical approaches chosen for this thesis were firstly, socio- technical system approach, which helped to understand the interaction between people and technology. Socio-technical approach creates an extra value to the user. ERA's e-services create also extra value for the end user — they are easy to use, have less expensive state fee (20% cheaper than going into bureau) and save user's time. People adapt services better, which are created to satisfy their needs, instead of services, which are not focused on the user's needs. The next theoretical concept

analyzed services and e-services. What means a service and an e-service? What are the difference between those two concepts? Word “e” stands for if something is done electronically. The “service” refers to a process, in which extra value is added for the user. ERA’s e-services can be also described as electronic value added services.

Another theoretical forthcoming, through which this research was observed, was the stages of e-government service approach. Author analyzed two suggested models — the four and the five stage model. The e-government four stage growth model consist of cataloguing, transaction, vertical integration and horizontal integration. (Layne, Lee 2001, 124) The new e-government model consists of web presence, interaction, transaction, transformation and e-democracy stage. (Siau, Long 2005) The five stages model is more suitable for ERA, as it is newer and more similar to ERA’s development process. It is important to divide services into phases, because it gives an overview about the organization’s service development phases and gives an indication, where the organization wants to be.

Successful e-services have to be user friendly and proactive. Having a service, which is designed to have only few simple clicks, could play the intense role in a ‘good service’ concept. Service design approach gave an overview, in which direction e-services should be developed. In this overview Ziraff’s handbook played an important role, because it was based on ERA’s example, how to create a good governmental e-services.

The last theoretical concept used in this thesis was marketing approach, which looked through service dominant logic approach. It gave an understanding, how important the connection between the customer and the service provider is (in this case a public organization), in order to create efficient e-services. It is important to have a market-oriented approach in the public sector during the development of e-services. This provides customer-oriented services, which make citizens everyday life easier and more convenient by adding extra value. The Road Administration creates their e-services according to the same principal. According to ERAs case study, the period when the e-services were developed, the interviews were done with the users, in order to get better understanding, how users see the services and how they use them. Interviews, tests with users and customer feedback gives extra value for the service provider and helps to make the service more effective and better.

The methodological approach of this thesis was based on ERA's case study and the mixed methods of quantitative and qualitative data. The quantitative data was used to analyze ERA's e-service usage and bureau visitation statistics. The qualitative data was used while analyzing descriptions, diagrams, emails and articles. Both statistics were collected from January 2014 until March 2016. The author analyzed two main topics. First of all, the correlation between e-service usage and the visits to bureaus and secondly, how marketing activities influences the usage of e-services. In the first paragraph of the analysis, it was discovered that bureaus visitation number and e-service usage are strongly connected with one another. The hypotheses, the more citizens use e-services, the less people visit the ERA's offices and the smaller are the lines at the bureau, was positive. ERA has the capability to decrease the official's numbers by 50. In 2015, many job positions in ERA were vacant, but this study shows, filling those positions would not be necessary, if the trend of e-service usage is growing. If the e-service usage grows 1% per month, then the visits to ERA's offices will decrease by 574 clients per month. This statistics show, the public sector spending's and the office workforce can be decreased.

In the second part of the analysis, different ERA's e-services were characterized; their marketing activities and e-service usage were compared. The e-services chosen in this research were:

- driving license exchange;
- ownership transfer;
- the drivers instructor licenses;
- applying for an instructor's certificate;
- temporary removal from register;
- registration for driving and theory exam.

Most of ERA's e-services had a strong link between the e-service usage and marketing activities. The increase in e-service usage grew during the same or the next month while the marketing approach was used. For example, articles were published in media about new opportunities, which can be done online; personalized emails; co-operations with Estonian biggest car portals, such as auto24, Top Gear, etc. Moreover, 2015 summer was full of promotion activities, when ERA's staff members visited open air festival, for instance, American Car Show in Haapsalu, Rally Estonia, Estonian Road Museum birthday and Motofest in Kiviõli, in order to introduced new ERA's e-services. This section brought out the necessity of public sector marketing.

Marketing e-services helps to inform citizens about new public sector innovations, which make their lives easier and decrease the workflow at the bureaus. In conclusion, marketing increases the e-service usage. There is no need for mass media campaigns, when it is possible to target the right audience in a smarter and more personalized way as ERA did.

To sum up, the research showed the growth of e-service usage decreases the Estonian Road Administration bureau visits. Moreover, the public sector marketing activities influence positively the Estonian Road Administration e-service usage percentage from all ERA's services. This means if marketing activities were carried out, it influenced the number of e-service usage — the e-service usage increased. Finally, the growth in ERA's e-service usages decreases ERA's administrative costs in a long run. According to available data, ERA's administrative costs should decrease, if ERA continues with the marketing activities and the usage of e-services percentage increases as well.

7.1 Recommendations and Further Research

ERA has launched their e-services in 2014, which means the e-services are still quite new. Looking into the statistics, the citizens have adapted the e-services very well. Doing fundamental conclusions based mostly on 2015 statistics, is not enough. To get the best knowledge how does marketing and the e-service usage influence each other and the visits to bureaus, there should be at least 3 years of statistics available. Moreover, future research could focus on marketing activities and their results, which would be possible to track (i.e. ERA's webpage visits, e-service webpage sessions, visit duration, customer behaviour flow etc.). Detailed overview could give better information about the marketing activities. Furthermore, marketing activities should be measured after certain time period, i.e. how many citizens opened this specific email with this kind of subject; what did the target group, who received an email? Did they visit ERA's e-service page and logged in? With this kind of further research, it is possible to provide 'smart' marketing plan for promoting ERA's e-services, in order to reach the customers in the right time and with the right message. On the final note, one recommendation for ERA's marketing team is to increase the number of content articles. Content marketing enables people to consume value added content. For instance, ad-blocks smothers the banner ads. Reaching the customer through the Internet is getting harder every year. Customer wants value, not distractions and excessive background noise.

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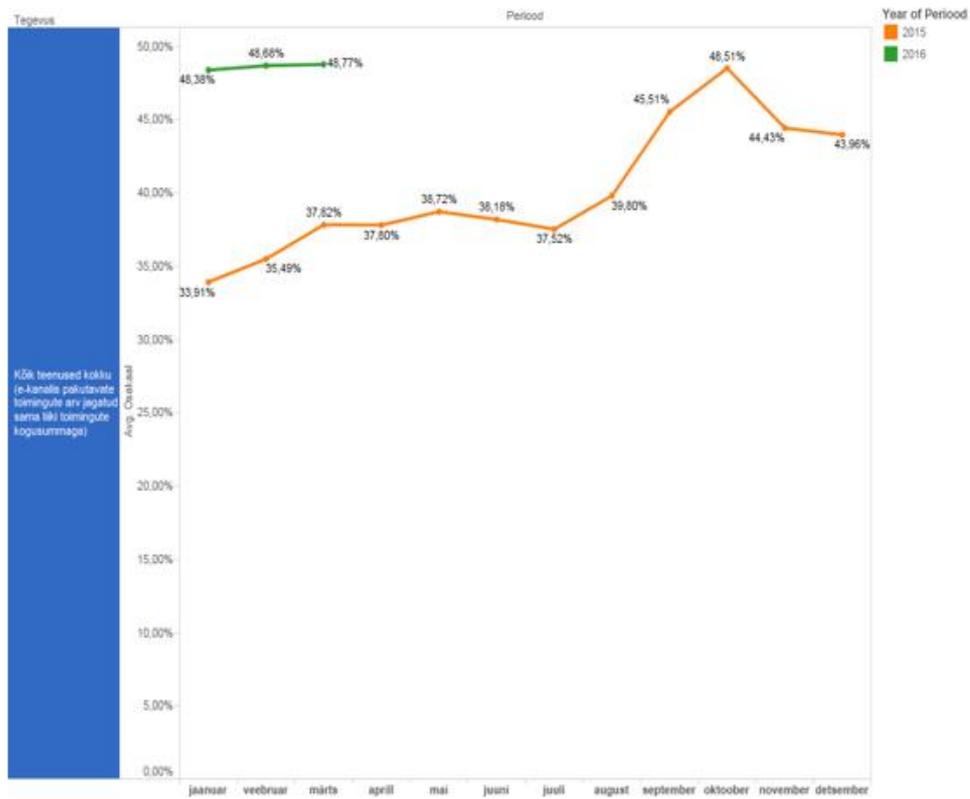
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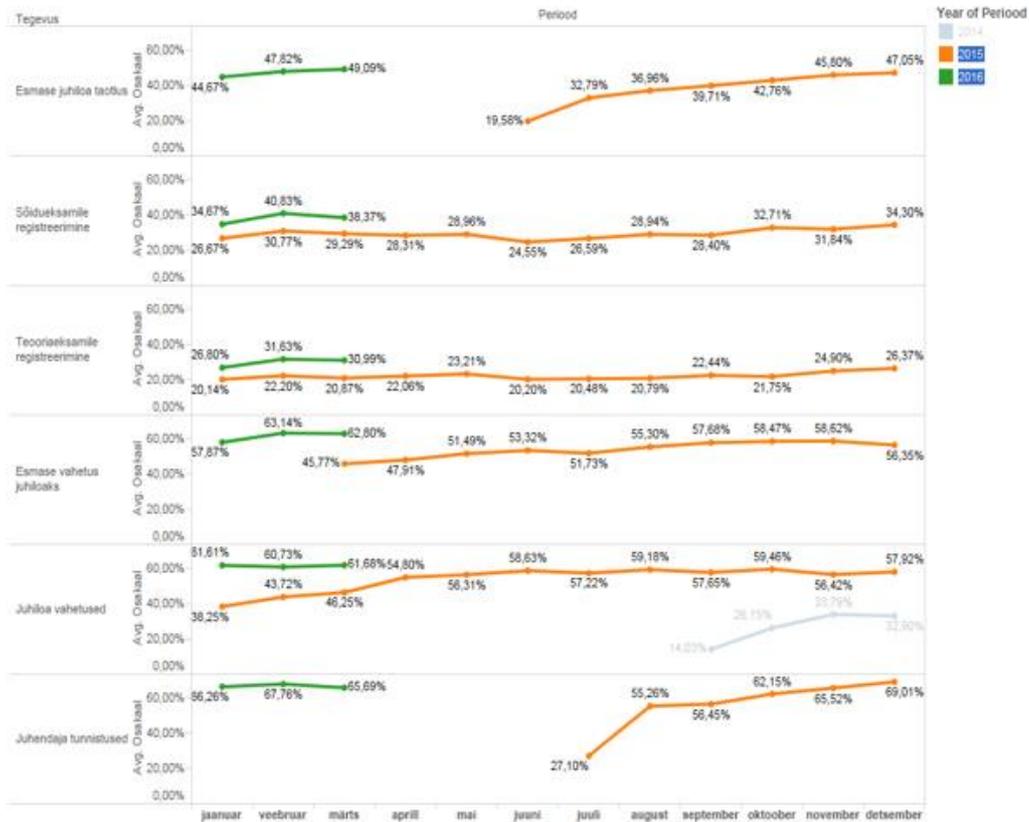
APPENDICIES

Appendix 1: The usage of e-service from all ERA's e-services 2015-2016



Graphic 1. The usage of e-services from all ERA's services 2015-2016

Appendix 2: ERA's e-service detailed usage from all ERA's services



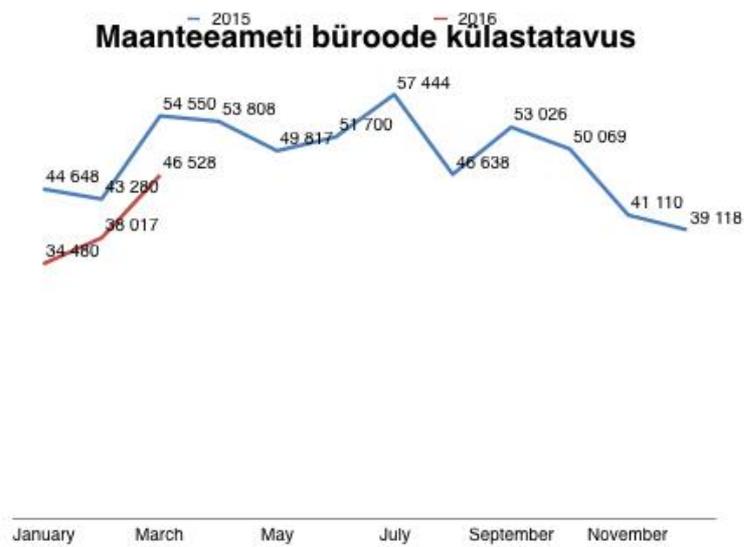
Graphic 1. ERA's e-service detailed usage from all ERA's services

Appendix 2: ERA's e-services detailed usage from all ERA's services



Graphic 2. ERA's e-service detailed usage from all ERA's services

Appendix 3: ERA's bureau visits in 2015 and 2016



Graphic 1. ERA's bureau visits in 2015 and 2016

Appendix 4: ERA's Marketing Activities 2014 – March 2016

2014	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
JANUARY	15 articles in media with topics: <ul style="list-style-type: none"> - The owners exchange in ERA's e-service portal - Car owners discover ERA's cheaper e-service platform - ERA opened a new e-service platform 		
FEBRUARY	5 articles in media with topics: <ul style="list-style-type: none"> - ERA launched a new e-service 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal
MARCH		<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal
APRIL	8 articles in media with topics: <ul style="list-style-type: none"> - ERA added new functions to e-service (vehicle background 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal

2014	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
	check) - E-coup in traffic registry, using web - cheaper and more convenient - Two wheelers exam time has begin	bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear)	
MAY	20 articles in media with topics: - health certificate issuance is more convenient - health certificate moves to internet - E-coup in traffic registry, using web - cheaper and more convenient - Margus Pipar: “Good experiences with e-services” - New driving license by post - 10 things to know when buying a used car - Buy a used car smartly	- print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear)	- emails for vehicle owners, in regards to what can be done in ERA’s e-service portal
JUNE	4 articles in media with topic: - Peatus.ee got mobile version	- print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear)	- emails for vehicle owners, in regards to what can be done in ERA’s e-service portal
JULY	9 articles in media with topic:	- print - content articles in	- emails for vehicle owners, in regards to

2014	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
	<ul style="list-style-type: none"> - ERA now applies also to e-mandates 	<ul style="list-style-type: none"> WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) 	<ul style="list-style-type: none"> what can be done in ERA's e-service portal
AUGUST	<p>1 article in media with topic:</p> <ul style="list-style-type: none"> - ERA's e-service portal is the most convenient for the client 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal
SEPTEMBER	<p>23 articles in media with topics:</p> <ul style="list-style-type: none"> - 20 e-services are moving towards to become more user friendly - Driving licence can be ordered via post - Driving licence can be exchanged in e-service - 15 000 drivers licence lost its validity 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) - auto24 link banner (20% cheaper in ERA's e-service portal) 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal - email about the expiring of driving license

2014	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
OCTOBER	3 articles in media with topics: <ul style="list-style-type: none"> - Ordering driving licence via post gathers popularity 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) - auto24 link banner (20% cheaper in ERA's e-service portal) - e-service tutorial videos 	<ul style="list-style-type: none"> - emails for vehicle owners, in regards to what can be done in ERA's e-service portal - email about the expiring of driving license
NOVEMBER	1 article in media with topic: <ul style="list-style-type: none"> - New e-services stop issuing the temporary license 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) - auto24 link banner (20% cheaper in ERA's e-service portal) - e-service tutorial videos 	<ul style="list-style-type: none"> - email about the expiring of driving license
DECEMBER	4 articles in media with topic: <ul style="list-style-type: none"> - In order to exchange driving license, it is necessary to pre fill the application online for health certificate - Health certificate - what is it? 	<ul style="list-style-type: none"> - print - content articles in WhatCar & Top Gear - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - banners (auto24, whatcar.ee, topgear) - auto24 link banner (20% cheaper in ERA's e- 	<ul style="list-style-type: none"> - email about the expiring of driving license

2014	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
		<ul style="list-style-type: none"> - service portal) - e-service tutorial videos 	

2015	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
JANUARY	3 articles in media with topics: <ul style="list-style-type: none"> - It is possible to change the name in ERA's e-service 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube 	<ul style="list-style-type: none"> - email about the expiring of driving license
FEBRUARY	24 articles in media with topics: <ul style="list-style-type: none"> - It is possible to change the name in ERA's e-service - 14 900 people got the first driving licence last year - 90 000 vehicle owners have to exchange their driving licenses - It is possible to change first driving licence more convenient 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry

2015	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
MARCH	1 article in media with topic: - It is possible to change the name in ERA's e-service	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
APRIL		<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
MAY		<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
JUNE	14 articles in media with topics: - Best e-services were chosen	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about

2015	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
JULY	<ul style="list-style-type: none"> - Clever e-services come from life itself - It is possible to apply for driving license and register exams via e-service portal 	<ul style="list-style-type: none"> - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> upcoming arrangements in traffic registry
	<p>15 articles in media about topics:</p> <ul style="list-style-type: none"> - 50 000 vehicles are being threatened by compulsory insurance - It is possible to apply vehicles driving instructor certificate via e-service portal 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) - ERA's delegation introduced e-services in American Car Show in Haapsalu and Rally Estonia - Estonian Road Museum birthday 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
AUGUST		<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) - ERA's delegation introduced e-services in 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry

2015	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
		Kiviõli Motofest	
SEPTEMBER	1 article in media with topic: <ul style="list-style-type: none"> - 21 works has been nominated to the best digital work 2015 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
OCTOBER	4 articles in media with topics: <ul style="list-style-type: none"> - ERA has the capacity to decrease 50 vacancies - ERAs e-service portal has problems - ERA's e-service portal works again 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry
NOVEMBER		<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry

2015	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
DECEMBER	1 article in media with topic: <ul style="list-style-type: none"> - ERA's bureau will be opened in the second part of December 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find from homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry - email to those who started training in driving schools in B-category motor vehicle driver - the impact of the initial license application and theory exam registration option online

2016	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
JANUARY	7 articles in media with topics: <ul style="list-style-type: none"> - ERA's e-service portal expanded - It is possible to apply for motorcycle, a truck, a bus control rights 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find from homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry - email to those who started training in driving schools in B-category motor vehicle driver
FEBRUARY	3 articles in media with topics: <ul style="list-style-type: none"> - ERA closes Lasnamäe service bureau 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry

2016	ARTICLES IN MEDIA	MARKETING ACTIVITIES	DIRECT COMMUNICATION
MARCH		<p>possible to find form homepage and YouTube</p> <ul style="list-style-type: none"> - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email to those who started training in driving schools in B-category motor vehicle driver
	<p>26 articles in media with topics:</p> <ul style="list-style-type: none"> - ERA closes Lasnamäe service bureau - In the upcoming months the photo booths will disappear from ERA's bureaus - Applying for driving license goes more easier 	<ul style="list-style-type: none"> - Information in service bureaus, roadworthiness test bureaus, driving schools, newsletters - e-service tutorial videos are possible to find form homepage and YouTube - Office managers directed clients to manage the service online (and instructed them) 	<ul style="list-style-type: none"> - email about the expiring of driving license - direct e-mails about upcoming arrangements in traffic registry - email to those who started training in driving schools in B-category motor vehicle driver - email to those who need to exchange their first driving license

