E-governmental Services for Entrepreneurs in the Baltic Sea Region—An Empirical Study*

Gunnar Prause  
Wismar University, Wismar, Germany  
Tallinn University of Technology, Tallinn, Estonia  
Merli Reidolf  
Tallinn University of Technology, Tallinn, Estonia

E-government is a popular topic in the political agenda, but often the e-services have been made more from the government point of view and are technology driven. Thematic developments which would take into account the special needs of entrepreneurs and would therefore help to reduce their administrative burdens are missing. The current analyses used customer-oriented approach to understand what the SMEs are thinking about e-government. The article is based on semi-structured interviews conducted in the project Egoprise bringing into focus the needs of the entrepreneurs, and gives hints about what should be considered who e-government could become a tool for reducing administrative cost, achieve a better government and support innovative solutions for growing entrepreneurship.

Keywords: e-government, G2B, business oriented e-services, entrepreneurial environment, administrative costs of entrepreneurs

Introduction

E-government is a popular topic in the political agenda throughout where all countries have ICT development strategies, policies or agendas (e.g., EU, 2010). However, often the goals for thematic developments are missing which would take into account the special needs of entrepreneurs (Lille & Prause, 2009), and e-services are more technology driven (Schuppan, 2010; Lenk, 2007). Successful implementation of the e-government will be more often in the agenda to reduce the cost of the local and national governments and improve the services and user’s satisfaction (Warkentin, Gefen, & Pavlou, 2002). Therefore, it is important to understand the needs of the entrepreneurs as a group of potential e-government users and also help to reduce the administrative burdens of the enterprises.

In order to improve the situation, the European Union approved in September 2009 in the framework of

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Gunnar Prause, Ph.D., Professor, Wismar Business School, Wismar University, Tallinn University of Technology.
Merli Reidolf, M.Sc., Researcher, Department of Business Administration, Tallinn University of Technology.
Correspondence concerning this article should be addressed to Gunnar Prause, Wismar University, Philipp-Müller-Str. 14
Wismar 23966 Germany. E-mail: gunnar.prause@hs-wismar.de.
the Baltic Sea Region Programme the INTERREG IVB project “EGOPRISE”. The aim of the project is to turn public administration to more business oriented service suppliers, relieve SMEs from administrative burdens, improve their access to information using e-government. The project partners are from the Baltic Sea region (BSR): Belarus, Denmark, Estonia, Finland, Germany, Latvia, Lithuania and Sweden. Wismar University and Tallinn University of Technology are two of the core partners in the EGOPRISE partnership trying to develop new interoperable e-governmental solutions by keeping in mind the needs of entrepreneurs.

As far as known to us, there are a few surveys dedicated to entrepreneurs and their expectations towards e-government. Therefore, the purpose of the current article is to understand what the entrepreneurs value using e-government, and what are the disadvantages. Our goal is also to make proposals to create more business oriented e-services. To fulfill the purpose, all the project partners conducted semi-structured interviews and made country-based summaries. Our article is based on these reports.

The article is divided into five parts. The second section introduces the theoretical framework of e-governance and especially business oriented e-services. In section 3, the method will be described. In the section 4, the main findings are presented and discussed. The article ends with the summary and recommendations.

Theoretical Framework

The definitions of the e-government can be divided into two groups: as just the online service delivery or the possibility to change the governance through the use of the Internet (Torres, Pina, & Acerete, 2005). OECD (2003, p. 1) has defined the e-government as “the use of information and communication technology (ICT) and particularly the internet, as a tool to achieve better government”. The Commission of the European Communities (2003, p. 7) sees the e-government as “the use of information and communication technologies in public administrations combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies”. So the Commission of the European Communities emphasizes even more the need to change the government system in order to improve the public administration and the technology is just the tool. The others are talking more about the technology and stress the ICT (Thompson, Rust, & Rhoda, 2005).

In our study, we applied the OECD definition and see ICT as a tool to achieve better government. In parallel, we used the e-services as the use of electronic delivery for government information, programs, strategies and services. We will analyze the government to business (G2B) interaction which is online non-commercial interaction between local and central government and commercial business sector, rather than private individuals. (EgoPrise, 2010).

In general, the previous studies focused on the number of online services and the depth or stage (how much you can do through the Internet) (Torres, Pina, & Acerete, 2005). The European countries have been benchmarked according to the availability and sophistication of the level of the basic e-government services. Sophistication focuses on the interaction between service provider and user, from simple information provision to personalized pro-active case handling. The model reflects how businesses and citizens can interact with public authorities. On the basis of the model governments’ (e-)service, delivery processes can be described according to the following stages: (1) information providing; (2) one-way interaction (downloadable forms); (3) two-way
interaction (electronic forms); (4) transaction (full electronic case handling); and (5) targetization (pro-active, automates) (European Commission, 2009).

Public e-services are generally more mature, however not all services are on the high level and not all government actors perform equally (European Commission, 2009). Analyses made by the European Commission (2009) show that usually more decentralized service delivery structures have less sophisticated services. Torres, Pina and Acerete (2005) noticed that although big cities are not always more innovative, their delivery of services is more complex because they have more staff and other management resources.

The availability of technology is not enough, and digital technologies must be used, and used effectively (Economist Intelligence Unit, 2009). Equally important is the awareness about the services, the affordability of access, ease of use and willingness to use the services (Commission of the European Communities, 2003). Verdegem and Verleye’s (2009, p. 490) studies show that “the supply of e-government services is a precondition for people to develop the intention to use these services”. van Dijk, Peters and Ebbers (2008) study in Netherlands indicates to the big error in governments agents’ logic when they think that electronic services will be automatically used as soon as they are available. But the users will keep on using the traditional non-electronic services because they are used to and feel convenient unless they learn a better alternative.

The main challenge is to identify the needs of the customers and design the services according to their needs (Torres, Pina, & Acerete, 2005). We must know the expectations of the entrepreneurs from the point of view of interaction with government to understand how to relieve the businesses from the administrative burden and offer them better governance. The e-government services may help to make businesses more profitable through revenue expansion by helping to collect and disseminate critical information and therefore enhance the firms’ intelligence generation and cost reduction (Thompson, Rust, & Rhoda, 2005). More productive and higher quality e-services will reduce the cost of the public service and administrative errors as well as transaction costs at business side (time effort) (Commission of the European Communities, 2003). The customer-oriented approach is important because the producer and customer are on the different sides of the web interface and this moves them farther apart although the idea was to bring them closer than before (Mohammed, 2008). This should be kept in mind when the system analytics are going to develop e-governmental services.

The other question is how to encourage entrepreneurs to use e-government. A learning process should start with the availability campaigns, and therefore build the experience in using e-services. The survey showed that the conditional factors of service supply, knowledge of services, and digital media use are the most primary and basic factors for the explanation of government internet services usage, and the social/demographical factors are not so important as understood previously and the question of digital divide cannot be underestimated (van Dijk, Peters, & Ebbers, 2008). Mahadeo’s (2009, p. 398) results showed that the users’ attitude or perception of the usefulness and ease of use of the system is the most powerful predictor to users’ intentions, this is followed by the social influence (individual belief that others thought they should use e-services). The success stories, improved social characteristics and knowledge of the end users help to widen the number of users (Warkentin, Gefen, & Pavlou, 2002).

According to the Commission of the European Communities (2003), the issues that affect the use of e-services are:

(1) Inclusive access (including digital literacy to take the full advantage of offered services, choice of
devices, availability of the Internet, fast and always-on communication);

(2) Trust and confidence (protection of personal data, authentication, identity management, this also means that only data which is necessary for the fulfilment of the respective service may be collected);

(3) Better use of public sector information (e.g., re-using the content such as geographical, tourist, meteorological information and statistics could lead to the economic growth and job-creation but also choice and quality of services for citizens);

(4) Interoperability (e.g., service is provided without any breaks regardless of the number of different administrative bodies; open standards are used at the technical level);

(5) Organizational change (e.g., customer orientation, a one-stop approach, a life or a business event orientation).

Method

In the EGOPRISE project, we and our partners have conducted a qualitative research to understand the needs of the entrepreneurs and the G2B interactions. This paper will present first results of a survey which was carried out in five Baltic Sea countries within the framework of the EGOPRISE project. The focus of current study was to highlight the gaps between SME needs/expectations towards e-government services compared to the existing situation and find new ideas about the improvement of interactions between public sector and businesses.

The project partners under the leadership of the work package (WP) number 3 conducted an interview guide (in English) with main topics and open questions. The responsible partner in the country translated the questionnaire and conducted interviews in the mother tongue of the interviewee.

All interviews were recorded and transcribed in the language of the interviewee, and the country-based summaries were compiled. In each country the partners conducted 8-19 interviews.

The analysis is based on the country-based summaries of interviews with enterprises. When there is, in the following text, a reference to the country based summary, only the abbreviation of the country is used. The method of data analysis was thematic content analysis (Anderson, 2007) of the interview data based on categories derived from the interviews. The main purpose of the paper is to analyze the enterprises’ expectations towards the e-government services and what they value.

Results and Discussion

E-governmental Backgrounds of the Studied Countries

As seen in Table 1, almost all of enterprises in the project partner countries have the internet access, and the availability is better than the EU27 average. But not all the enterprises which have access to the internet use it for G2B interactions.

Most of the enterprises (71%) in the whole EU have used the internet for interaction with public authorities. Danish, Swedish, Finnish and Estonian enterprises have better availability to on-line services than EU27 average, and they also use more than the internet for interaction with public authorities than the EU27 average. It is worth mentioning that although e-government on-line availability index in Germany is equal to EU27 average, the German enterprises use the e-government services less than EU27 average. And in Lithuania
where the e-government availability is lower, more than 90% of all the enterprises use e-government services. As written before availability is not the only thing that influences the usage of e-services.

Table 1

<table>
<thead>
<tr>
<th>Indicators, %</th>
<th>EU27</th>
<th>DK</th>
<th>SE</th>
<th>DE</th>
<th>FI</th>
<th>EE</th>
<th>LT</th>
<th>LV</th>
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</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Internet access</td>
<td>94</td>
<td>98</td>
<td>95</td>
<td>98</td>
<td>100</td>
<td>95</td>
<td>95</td>
<td>88</td>
</tr>
<tr>
<td>with a broadband connection</td>
<td>83</td>
<td>82</td>
<td>89</td>
<td>89</td>
<td>94</td>
<td>86</td>
<td>58</td>
<td>62</td>
</tr>
<tr>
<td>using the Internet for interaction with public authorities</td>
<td>71</td>
<td>90</td>
<td>86</td>
<td>65</td>
<td>96</td>
<td>79</td>
<td>91</td>
<td>64</td>
</tr>
<tr>
<td>using the Internet for returning filled-in forms to public authorities</td>
<td>55</td>
<td>66</td>
<td>61</td>
<td>52</td>
<td>83</td>
<td>64</td>
<td>85</td>
<td>51</td>
</tr>
<tr>
<td>using the Internet for submitting a proposal in a public electronic tender system to public authorities</td>
<td>11</td>
<td>11</td>
<td>15</td>
<td>12</td>
<td>0</td>
<td>14</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>E-government usage by individuals</td>
<td>30</td>
<td>67</td>
<td>57</td>
<td>37</td>
<td>53</td>
<td>44</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>E-government usage by enterprises</td>
<td>71</td>
<td>90</td>
<td>86</td>
<td>65</td>
<td>96</td>
<td>79</td>
<td>91</td>
<td>64</td>
</tr>
<tr>
<td>on-line availability</td>
<td>74</td>
<td>84</td>
<td>95</td>
<td>74</td>
<td>89</td>
<td>90</td>
<td>60</td>
<td>65</td>
</tr>
</tbody>
</table>

Notes. 

a Percentage of enterprises with at least 10 persons employed in the given NACE sectors. Within the last calendar year before the survey; b The availability of broadband is measured by the percentage of enterprises that are connectable to an exchange that has been converted to support xDSL-technology, to a cable network upgraded for Internet traffic, or to other broadband technologies; c Percentage of individuals aged 16 to 74 who have used the internet, in the last 3 months, for interaction with public authorities (i.e. having used the Internet for one or more of the following activities: obtaining information from public authorities web sites, downloading official forms, sending filled in forms); d Percentage of enterprises using the internet to interact with public authorities (i.e., having used the Internet for one or more of the following activities: obtaining information, downloading forms, filling-in web-forms, full electronic case handling); e The indicator shows the percentage of the 20 basic services which are fully available online, i.e., for which it is possible to carry out full electronic case handling. For example if in a country 13 of the 20 services were measured as being 100% available on-line and one service was not relevant (e.g., does not exist), the indicator is 13/19 which is 68.4%. Measurement is based on a sample of URLs of public web sites agreed with Member States as relevant for each service. Source: Eurostat.

Table 2 shows how the use of the internet for interaction with public authorities by enterprises has changed during 2005-2009. The number of e-government users has risen in all countries. The enterprises in Nordic countries are always among the top users, and therefore the growth has not been remarkable. More than 2/3 of Estonian and Lithuanian enterprises (70%) used in 2005, the e-government was relatively more than German, Latvian and EU27 average. Although the percentage of e-government users in Germany and Latvia is still lower than EU27 average, the growth has been bigger than averagely in the EU27. By the 2009, the percentage of e-government users in Lithuania has grown up to 91%, whereas the number of users in Estonia has not been growing as much in Lithuania. One possible explanation may be that Estonia had already 2004 quite a good infrastructure and availability and during 2005-2009 publicity to grow the number of users has not been too active.

The higher transaction level of e-government can be measured according to the usage of internet for returning filled-in forms to public authority (see Table 1). As expected from the literature review, the number of enterprises who use transaction services is lower, but still most of the enterprises from the countries in the EGOPRISE project use it more than EU27 average. Only just half of the Latvian and German enterprises use the transaction services.
The statistics show as pointed also in the literature that the enterprises use more e-government than citizens.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU27</td>
<td>57</td>
<td>63</td>
<td>65</td>
<td>68</td>
<td>72</td>
</tr>
<tr>
<td>DK</td>
<td>87</td>
<td>87</td>
<td>88</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>SE</td>
<td>80</td>
<td>80</td>
<td>79</td>
<td>78</td>
<td>86</td>
</tr>
<tr>
<td>DE</td>
<td>44</td>
<td>49</td>
<td>56</td>
<td>56</td>
<td>65</td>
</tr>
<tr>
<td>FI</td>
<td>91</td>
<td>93</td>
<td>94</td>
<td>95</td>
<td>96</td>
</tr>
<tr>
<td>EE</td>
<td>70</td>
<td>69</td>
<td>76</td>
<td>77</td>
<td>79</td>
</tr>
<tr>
<td>LT</td>
<td>72</td>
<td>76</td>
<td>76</td>
<td>86</td>
<td>91</td>
</tr>
<tr>
<td>LV</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>55</td>
<td>64</td>
</tr>
</tbody>
</table>

Notes: a Percentage of enterprises with at least 10 persons employed in the given NACE sectors. Within the last calendar year before the survey. Source: Eurostat.

Reasons for Using E-government

During the interviews, we asked why the enterprises use e-government services. In Table 3, there are the benefits mentioned in the interviews. The most important factors are time and money. The entrepreneurs believe that they save time when looking for information, travelling. The SMEs all over the BSR region mentioned that using e-government is efficient, saves time and expenses, but sometimes it is compulsory (DK, DE, EE, LT).

Table 3

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving recourses</td>
<td>Time, money, travel costs; Reduced paperwork, optimizing the internal workflows; Server recourses (because the (central) government is responsible for maintaining and making back-ups of all documents).</td>
</tr>
<tr>
<td>Convenience</td>
<td>Easy and quick 24/7 access to the services and information; The known services are easy to use; No necessity to visit an authority’s office; Easier than calling and waiting for forms to be sent; One does not need to do the same things repeatedly; Possibility to install system-to-system reporting.</td>
</tr>
<tr>
<td>Transparency</td>
<td>Less bureaucratic procedures and increased transparency, quality and speed of administration; There is often a message that has been sent successfully; Lack of manipulation is an important advantage, but more in the meaning that perhaps then officials look also more carefully, when they know some footprints are always left behind; More than one source is available, which increases availability, trust in information obtained and its comparability as well as different points of view; Automatic communication between databases saves time and helps to avoid stupid mistakes, which may happen when submitting data/applications/etc. via traditional methods.</td>
</tr>
</tbody>
</table>

Note: Source: Country reports from the EgoPrise project.

They also value the convenience, and they can use it whenever they need. E-government information services are 24/7 (24 hours and 7 days) available (should be) and are always accessible and this makes it possible to check information from other sources and compare the information or possibilities by yourself (EE).
The increased transparency in the administration process was mentioned in Danish, German and Estonian interviews. Thanks to the integrated systems, one does not need to do the same things repeatedly (FI) and can avoid mistakes as the system controls (EE). One of the advantages is that there is always a copy of sent things, and often also a receipt for the sender (FI) and the back-up of all documents should be done by the government (EE).

Concerning the information protection, there are different opinions. Some say that using e-government will help to protect information (EE, FI). For example, it is possible to find out who looked at the data. On the other hand, some of the interviewees are afraid that the information might leak (EE, DE). Also in Lithuania, the SMEs referred to the low confidence for the safety and reliability of processes (LT). There is a threat that authorities will control too much, as they are tempted to ask for too much information (DK).

**Disadvantages of the E-government**

In the interviews, we asked why the entrepreneurs do not use the e-services or what the disadvantages are (see Table 4). Some interviewed entrepreneurs from countries like Denmark, Sweden, Estonia and Finland could not see reasons not to use e-services. All the interviewed companies take it for granted that the services of the authorities as well as business services are offered on the internet. Using the electronic services is the first preference of the companies (FI). E-services are offered and preferred (SE).

<table>
<thead>
<tr>
<th>Disadvantages</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of knowledge, information and communication</td>
<td>Information presented is too general, official language is used, difficulties in interpreting and finding right information, clear instructions and technical assistance, language variety is not observed; The users do not know what kind of services exist; There is no one to ask for help; in most cases it is only information but not 2-way communication.</td>
</tr>
<tr>
<td>Unconvienience</td>
<td>When it is done once or not often, the learning process may be time consuming as the logic of the services in different places is always a little different; Sometimes you cannot save the unfinished or finished form, the forms and filling out applications are not standardized.</td>
</tr>
<tr>
<td>Inconsistence</td>
<td>Not all services and the whole service chain are in the web; Poor links between different institutions, each institution is responsible for a part of the process, none of them is able to give a description of all of it in detail; Sometimes you need to download, print out, fill and then send away by post; Not always the users get a receipt when they have finished a digital transaction.</td>
</tr>
<tr>
<td>Technical problems</td>
<td>Sometimes the e-service or server is too slow or offline; Problems if it is not used Windows and/or Microsoft Office software and smaller hard ware like mobile phones; Registering as a user in many places is an additional burden; When there are system-to-system, whenever the authorities change the system (which they do regularly), the enterprises have to change their systems too.</td>
</tr>
</tbody>
</table>

*Note.* Source: Country reports from the EgoPrise project.

Some entrepreneurs brought out that they do not know about services and therefore do not use them. The authors do not know where to find what kind of information or services exist (EE, DE). Also Lithuanian SMEs said that they are not familiar with the possible e-services and the advantages of using them (LT). The information is available in different web-pages with different structures (LV, EE), and this makes it difficult to find, and they lose the most important advantage—saving resources including time. There was also mentioned the risk that information might leak (DE, EE) and that’s why they avoid e-services. Often (DE) or sometimes
(EE) direct personal contact to the public administration is preferred, and this might be again the question of beliefs.

It was also mentioned that if things in a digital transaction start to go wrong—then it can become really complicated and the personal communication is needed. You cannot see, how far you got in the process—and how many of your registrations have been accepted—and then it is very difficult to get in touch with live people, who can find out about it for you—and solve your problem (DK). Then the process becomes very time consuming

It was also mentioned that the entrepreneur has a problem or group of obligations what she/he must do. If the entire chain of needed actions is not offered through the Internet (there are media brakes) then it does not help if just some of the services are interactively used via the Internet. If you have to meet an official for additional reason (for example, giving a physical signature or training) then it does not matter whether there is an e-service or not (EE). Usage of e-services is time consuming and ineffective, since the process is complicated and there are poor links between state institutions (LT).

In the interviews, the entrepreneurs mentioned a set of disadvantages what they had experienced or what they imagined them to be (see Table 4). Many of these disadvantages are in close connection to the advantages (see Table 3). If the entrepreneurs value the time and convenient and transparent governance they are not satisfied if these requirements are not fulfilled, e.g., the information is not available, fragmented or difficult to interpret and there is no one to ask for help, the service is not available if they want to use it or there are technical problems that take time.

We can notice that the more interviewees had experiences with e-government the more proposals they had about how to make it more customer friendly and what could be added. And for example in Germany where Eurostat statistics already showed that not too many entrepreneurs use e-government services, the interviewees also did not have too many comments about the G2B services.

**How the E-government Could Help in the Internationalization of SMEs**

The small and medium sized enterprises need to use the foreign markets if they are interested in growing and developing. The question is how much the government and in our context especially e-government services could help and what kind of help is needed.

The e-government is not seen as the biggest problem for cross-border activities. The major obstacles in the internalization are connected to the legislation, cultural differences, language barriers (LV). This is in line with the results of empiric studies related to international operations of SME in the BSR (Beifert & Prause, 2006; Beifert, 2007). Both studies revealed that administrative and legal topics are of high relevance for entrepreneurs in business internationalization where this topic was ranked higher among the Baltic States, Poland and Russia than in the old EU countries in Denmark, Germany and Sweden.

In Estonia, the entrepreneurs pointed out that they are used to use e-government but the governmental e-service usage in cross-border activities is very minimal as the digital signatures are not so common in other countries or if they are used then the technical standards are not the same and the question about accepting other countries digital signatures is still open.

The other entrepreneurs added that there could be the same e-services in other countries, and this could
help in the cross-border cooperation. A challenge is the integration of e-services offered for SMEs in Estonia into at least neighboring countries as more and more businesses expand, thus avoiding dabbling of similar procedures or reporting in the main offices and its affiliates abroad (EE). As a conclusion, it can be assumed that more and new transnational e-services will facilitate the internationalization process of SMEs in BSR.

Conclusions and Recommendations

It is not an issue anymore whether the government is online, but the question is it is in what form and with what consequences. Torres, Pina and Acerete’s (2005) study and our interviewees showed that there is a lot of information, forms but not always the two-way communication and possibilities to finish the whole procedure at once via the Internet. The transition to e-government is not happening with the same speed in different countries and within the cities of each country (Torres, Pina, & Acerete, 2005, p. 235).

The intention should not be to do everything via e-government. Personal contact by phone cannot be replaced completely by e-service (SE). The question is how the e-government could help more the businesses, what could be done to relieve the businesses from the administrative burdens. During the interviews, the entrepreneurs made some country-specific proposals for improvements, but there were also several general proposals that could be useful in the BSR region and also in other countries.

If people are not aware of the e-services and do not use them, therefore, they are also not familiar with the added value that e-services could offer (Verdegem & Verleye, 2009). Trust is an important factor when talking about successful implementation of e-government (Warkentin, Gefen, & Pavlou, 2002). According to the studies mentioned before, to raise the number of users of the e-government, the agencies should let people to know what kind of e-services do exist. It is recommended that the non-users should hear the positive success-stories which emphasize that e-services are not only for technology fans but for everybody. This could help to raise the knowledge and trust. The customers should find the e-services as easily as possible and their trust should not be abused.

The interviewees wished to find entire information from the one place and got all neccessery information to finish the process at home. It is not possible to fill-in independently most of the downloadable forms because it is required to fill them in the presence of the official or the instructions are so confusing (LV) or written in official language (DE). Also the same fields in the different forms or applications should be defined in the same way across the different services (EE). The analyses also showed that a lot more effort should be put to design the process and to the use of technological solutions that make e-services easily accessible via different operation systems and hard ware. For example, the downloadable forms should be standardized, usable also in Mac and Linux computers. Sometimes, it is not possible to fill-in the forms with the computer (EE) or save the unfinished or finished document (FI). Regular meetings or monitoring with the end users are needed, to find out how the solutions really work.

“Education and training are essential to ensure that citizens have the neccessery digital literacy to be able to take full advantage of the offered services” (Commission of the European Communities, 2003). But the empiric study in the EGOPRISE project revealed more. So it can be stated that there is a huge difference among the countries investigated concerning the governmental online-ability. The study showed that in Demark, Estonia, Finland and Sweden, there are more e-services available, but the usage of e-government among
enterprises is not equally high. This may be because the dissemination and training activities of the e-government sector towards entrepreneurs is not appropriate. Especially, the age of entrepreneurs has a direct influence on the level of usage. The group of older entrepreneurs (more than 50 years) are using the internet and related e-services less intensively than the younger persons (Eurostat, 2009). Special training programs can help to increase the penetration of usage of the e-government services in the future.

Another result of the study was that even highly developed e-government countries are offering larger numbers of sophisticated e-services, but the services are distributed among different web-sites, and they are often not offered and constructed according to the needs of the entrepreneurs. This is part of the public organizational background of the administrative system which is divided into ministries and other national or local public institutions, which are responsible for parts of the offered e-services, but not able to offer integrated services for entrepreneurs. As an example, the highly developed company registration service in Estonia can be mentioned is lacking a direct interface with taxation so that the creation of a company can be realized fully online using one step-by-step procedure, but the registration for VAT is still a separate operation not connected to the registration portal (EE).

The last important point that should be mentioned here is the fact that transnational e-services are still a topic of the future. With the upcoming implementation of the service directive at EU level, a secure authentication of entrepreneurs from all EU member states will be possible, but the currently offered e-services are dominated by national considerations which is not a big surprise because the whole e-government sector is heavily dependent on national legislation. Even developed e-government countries like the Nordic States are offering their online-services mainly for national clients. Here the huge potential of transnational e-services in the field of internationalization of enterprises is still to realize.

References


