

USE OF E-GOVERNMENT IN POLAND IN COMPARISON TO OTHER EUROPEAN UNION MEMBER STATES

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Adopting new technologies into the practice of national government can significantly improve the quality of public services and the government's general performance. In this paper we present the results of our research on Poland's performance of e-government in comparison to EU15 and NMS12. The analysis is based on data provided by Eurostat's Information Society's comprehensive database. We find that Poland, on average, is lagging behind other European countries from both SMEs perspective and especially from citizens perspective in implementing effective technologies in public sector. In this paper we deliver some recommendations for the polish government.

Keywords: E-government, E-governance, Public Authorities, Citizens, SMEs

1. Introduction

Nobody, neither citizens nor enterprises, can escape from interacting with public authorities (or public administration interchangeably). The more efficient the interaction is, the less time and effort is needed to take care of administrative (official) matters. The key to transparent and effectively working public administration are digital technologies (information systems, Internet, social media). By implementing new technologies and learning how to use them in an efficient way, we can speed-up significantly official matters. Great amount of papers may be done automatically using the computer instead of time-consuming

manual methods (e.g. going to the office just to sign a piece of paper instead of using e-signature or eID).

E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens and enterprises [12]. In broader terms, E-governance is the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective [9, 10].

The aim of this paper is to analyze the overall situation of e-government and find biggest gaps of Poland in comparison to EU15 (old member states) and NMS12 (new member states) from the perspective of both citizens and SMEs. More specifically, we want to find biggest gaps of Polish e-government in terms of its usage and barriers of usage. Additionally, from the citizens' perspective we want to analyze e-health, and from SMEs perspective e-procurement and e-tendering which are all sectors of growing importance for e-government.

2. E-government usage among citizens

We begin this section by analyzing the biggest gaps of e-government usage level (also analyzed by different levels of education), and afterwards we check what type of barriers can be the source of such gaps. In the following subsection we focus solely on e-health, since it is a field of growing importance in e-government.

An interaction between public administration and citizens mainly takes place in areas concerning information, taxes, customs, business registration, social security, public health and environment. These areas are relatively highly developed in terms of digital technologies compared to other activities of the public administration. The websites within these areas enable civils to fulfill their obligations, take social contributions or gain access to public services. According to Eurostat's questionnaires, citizens and enterprises interact with public authorities or services by Internet (excluding e-mails) for 3 main private purposes as presented in Fig. 1. The overall number of citizens and enterprises interacting is two times lower, compared to EU15, in every aspect.

In Poland, usage of digital technologies for interacting with public administration by citizens is not as common as in other EU countries (especially EU15), to say the least. In the core EU Member States, every second citizen is obtaining information from public authorities' websites, in the leading Denmark - eight out of ten, while in Poland - only every fifth.

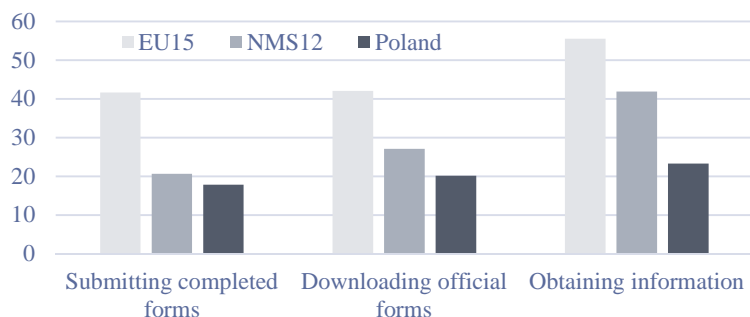


Figure 1. Interaction with public authorities or public services over the internet for private purposes in the last 12 months for the following activities (2014)

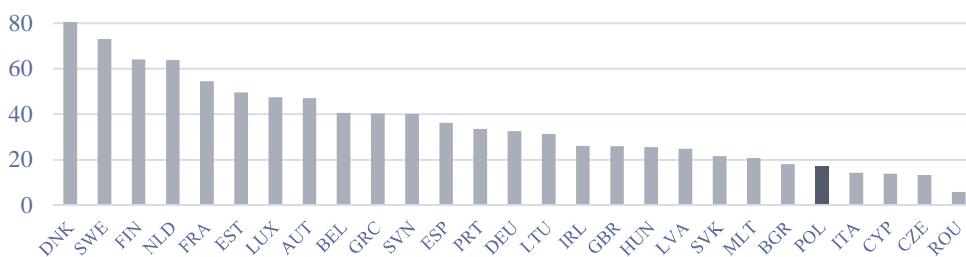


Figure 2. Usage of public authorities' websites in the last 12 months (2013)

In Fig. 3 firstly we can note that in all aspects of the usage of public service websites, Poland on average faces a gap with respect to NMS12 and especially EU15 countries. The submission of income tax declaration is the main reason why Polish citizens use public services (14%). Comparing this level of submission to other EU15 countries leads to surprising findings that it is still twice as low (18 p.p. less than in EU15). Moreover, it is disturbing to find such big gaps in the usage of websites for claiming social security benefits (10 times less usage), requesting personal documents (5 times less) or visiting public libraries online (2,5 times less). This is important since these aspects play a key role in digital interaction between citizens and public authorities, which will eventually lead to an economy with higher efficiency and will create positive spillover effects on other areas of the digital economy.

One of the main reasons for low interest of Polish citizens in e-government services is the fact, that they still prefer taking care of administrative matters in person, by visits in offices. It may come from the lack of confidence in effectiveness of contact by website, or just because public authorities do not allow to contact them this way.

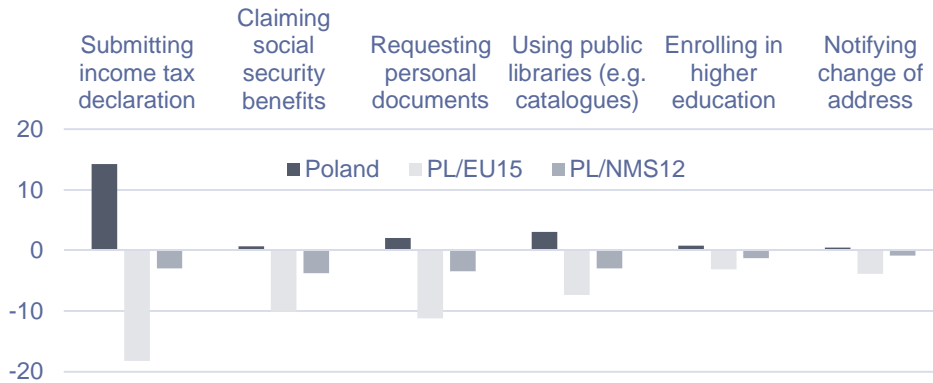


Figure 3. Usage of public authorities' or public services' websites in the last 12 months for following private purposes – differences between Poland and EU15/NMS12 (2013)

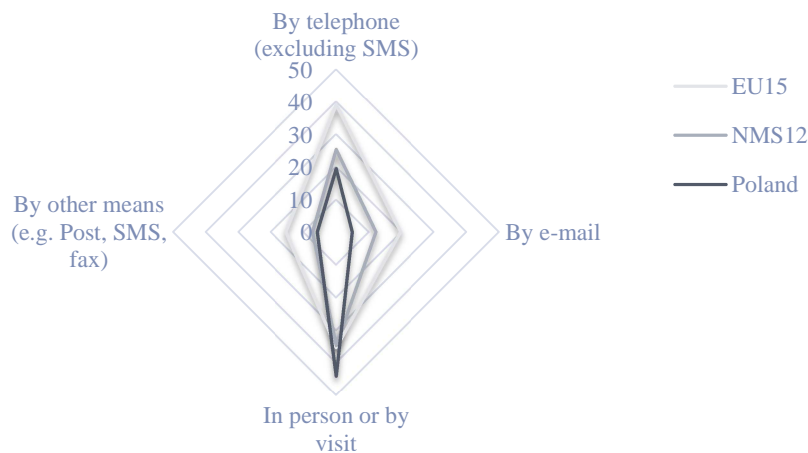


Figure 4. Methods (other than websites) used for contacting public authorities for private purposes in the last 12 months (2013)

Generally, people with lower level of education tend to use public authorities' websites less often than others, but especially in Poland this gap is very high. E-government is slightly more common among Polish citizens with medium education level but the gap is still significant. Not as striking (eye-catching) but still significant is the gap in this regard between Polish people with the high level of education in comparison with EU15.

In this context, it is worth taking a look at the reasons of such situation. The surveys' results indicate that the main factors discouraging European Union's residents from using e-government (precisely, from submitting completed forms) is the concern about protection and security of their personal data, and also the lack

of sufficient skills or knowledge especially among people with lower education level. For people with higher level of education a discouraging factor was the lack of or a problem with electronic signature (eID).

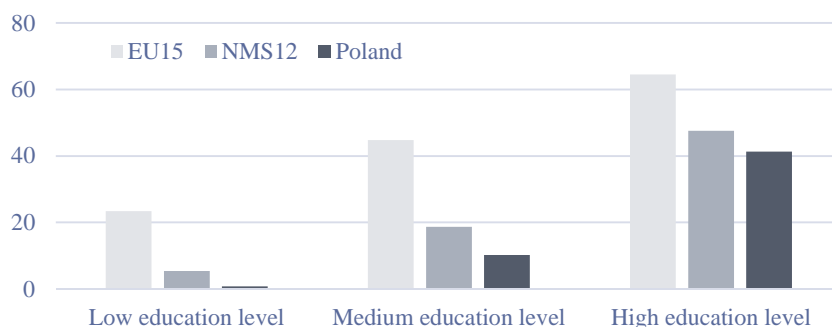


Figure 5. Usage of public authorities' or public services' websites for at least one private purpose in the last 12 months (2013) – by the level of education

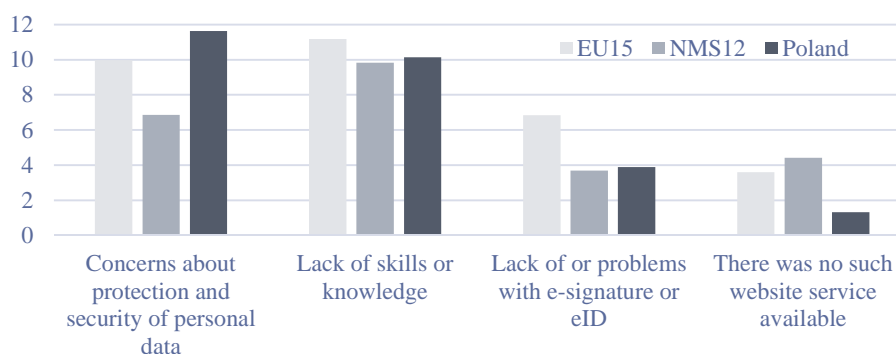


Figure 6. Reasons for not submitting completed forms using websites of public authorities – percentage of those who have not submitted completed forms in the last 12 months (2014)

Those Polish citizens – being a small minority – who do use e-government are mainly satisfied with the quality of provided services. The aspect that dissatisfies them the most is the lack of information provided on the progress (follow-up of the request). Similar tendency can also be observed in other EU Member States. It coincides with the results of OECD's research on open government data [8]; which points out that Polish public authorities do not enable users to give a feedback on the website and generally do not provide sufficient support (e.g. consultations of users' needs or notifications about released datasets).

Development of e-government in the field of e-health

In this short subsection we will try to assess the level of development of e-health in Poland by looking at the usage level as a proxy. One of the main reasons why e-health is of growing importance is because of Europe's demographic trends. These trends are driven by the population ageing, which causes healthcare expenditures to steadily rise (from 5.9% of GDP in 1990 to 7.2% in 2010, and predictably 8.5% of GDP in 2060) [2]. What is more, applying new technologies may notably enhance the quality of life, improve efficiency and reduce costs of delivered services.

Taking that into consideration, European Commission adopted the first plan in the field of e-health in 2004. Adoption of Article 14 of Directive 2011/24/EU on the application of patients' rights in cross-border healthcare aims to: make cooperation between European eHealth systems beneficial (economically and socially), draw up a set of guidelines for data to be interoperable, and at the same time to have in mind the principles of data protection included in other directives. At the end of 2012, European Commission adopted a new Action Plan for the 2012-2020 period. Plan consists of proposals of actions intending to create mature and interoperable eHealth system in Europe [1].

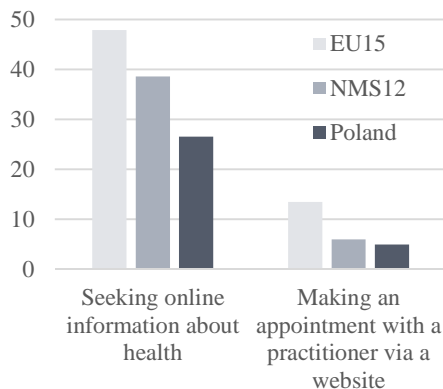


Figure 7. E-health usage by patients (2013)

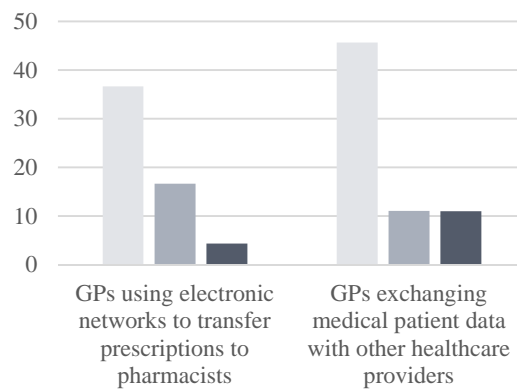


Figure 8. E-health usage by general practitioners (2013)

Polish citizens rarely check with Dr Google about health: in Poland only one in four citizens, while in EU15 every second civil seeks health information. Making an appointment with general practitioners via a website is not yet a common activity, especially in Poland – over two times smaller ratio than EU average (5% compared to 13,5%). Poland is lagging significantly in comparison to Nordic countries, where electronic healthcare is used commonly.

Instead of telephoning, communicating with healthcare providers electronically can save both sides' time and money, and can be more convenient since we may be able to look at the doctors' schedule and choose which date is most suitable for us. What is more, by making e-health systems more interoperable, we will be enabled to use them internationally.

Lack of interoperability within the healthcare system results in a low usage of e-health by general practitioners as well. Polish doctors, relatively to their European fellows, very rarely either transfer prescriptions to pharmacists or exchange medical patient data between each other using electronic networks. This is mainly due to lack of coordination of the fragmented regulatory framework and lack of interoperability.

To sum up this subsection, main reasons for relatively low development of Polish e-health system compared to other EU countries is due to severe financial constraints in this sector and weak regulatory framework. However, stimulation of innovation in the sector of e-health must be undergone not only to decrease gaps with respect to other countries, but also to tackle the growing problem of aging population in Poland and as a consequence in the EU. What is more, stimulating innovation in this increasingly important sector can lead to new business opportunities and can help the Polish economy become more competitive.

3. E-government usage among small and medium enterprises

The aim of this section is to analyze the overall situation and find biggest gaps concerning usage of e-government from the SMEs perspective. Afterwards, in the following subsection we analyze one of the most important elements of e-government for entrepreneurs which is the e-procurement and e-tendering.

Overall, nine in ten Polish SME's have declared that they contacted public authorities using the Internet in the last 12 months either to obtain information from websites, obtain or submit forms (e.g. customs or tax\VAT declarations), declare VAT or social contributions completely electronically without a need for paper work (including electronic payment, if required). It is worth noticing that in contrast to results in section 2, the gap between Poland and other European countries in Fig. 9 is almost non-existent, but we should keep in mind that there is always a room for improvement. The only country that seriously lags behind other EU Member States in using e-government by SMEs is Romania.

It is interesting to see that Polish SMEs are overall performing much better compared to the citizens in Poland in e-government usage. For example, the share of enterprises returning filled forms in Poland is higher than in the EU. Next, the share of enterprises obtaining information and forms from public authorities' website is on a similar level as in the EU (Fig. 10).

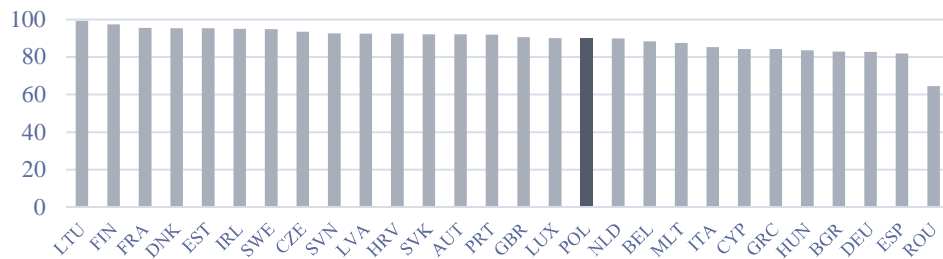


Figure 9. Percentage of SMEs using Internet for interaction with public authorities (2013)

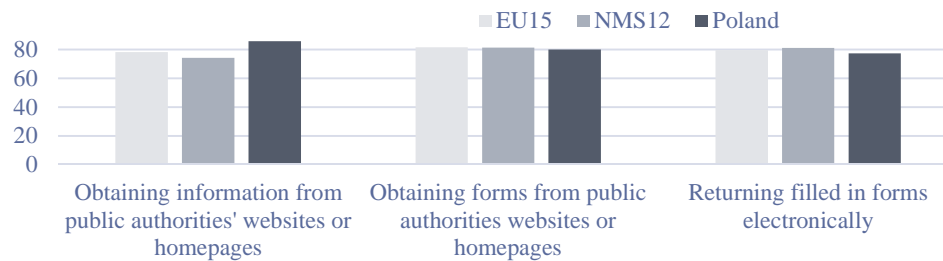


Figure 10. Percentage of SMEs using the Internet for the following purposes (2013)

Polish SMEs are above European average as for reporting social contributions completely electronically which is presented in Fig. 11. This is probably caused by regulations obligating enterprises to report them that way. On the other hand, there is enormous gap between Polish and European SMEs in terms of VAT declarations; less than one third of Polish SMEs declare VAT completely electronically, while in EU15 it is, on average, two thirds of SMEs.

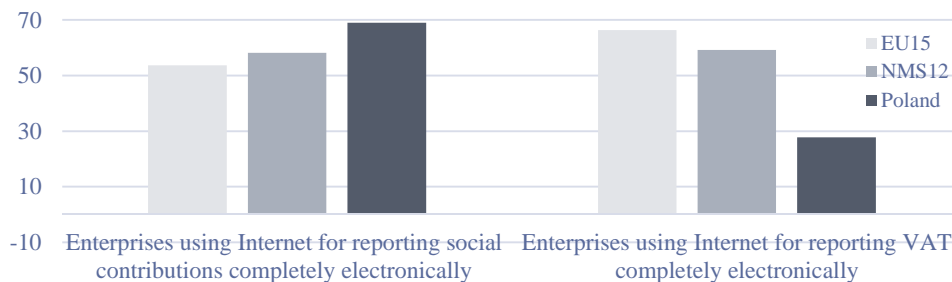


Figure 11. Percentage of SMEs using the Internet to declare VAT or social contributions completely electronically (2013)

E-government in the field of e-procurement and e-tendering

As mentioned at the beginning of the section, from the entrepreneurs' point of view public electronic procurement and electronic tendering are one of the main aspects of eGovernment. With the Digital Single Market on the way, it may be one of its key aspects for SMEs, who should benefit from DSM the most.

Public electronic procurement (eProcurement) refers to the use of the Internet by enterprises to offer goods or services to public authorities. It may be done at national or EU level. The eProcurement process is based on a number of stages from the notification process (online availability of procurement notices and tender specifications) through tendering, awarding, to payment. eTendering is the stage of an eProcurement process dealing with the preparation and submission of tenders or proposals online. This includes bids submitted through open, restricted, or negotiated procedures, as well as Framework Agreements and Dynamic Purchasing Systems (DPS).

Electronic procurement's main advantages are reduced transaction time and transaction costs, which together can be translated into more profitable offers [11]. As such system requires some level of standardization for offers, it may encourage enterprises to use eProcurement at the EU level. Electronic platforms also enable stakeholders to exchange information and data more efficiently, which on the other hand may raise concerns of its security and protection. The biggest advantage of carrying out a procurement process in a classic way is the feeling of greater confidence in honesty of the whole process: by participating physically and seeing how all procedures play out. That should be the reason why legitimate and transparent governance over every electronic procurement process is obligatory.

Compared to European Union, more Polish SMEs use electronic procurement systems to access tender documents and specifications. There are several Polish platforms with databases that enable stakeholders to do search for such documents, e.g. Biuletyn Zamówień Publicznych (Public Procurement Bulletin), but unfortunately it functions only in Polish language.

As one of the stages of eProcurement, eTendering while being done electronically can improve effectiveness of a whole process. Every fourth Polish SME takes part in eTendering process to offer goods or services in public authorities' electronic procurement systems. What is interesting is the fact that Poland, along with Ireland, Lithuania and Estonia, leads the way in terms of using electronic platforms for tendering in own country.

Polish SMEs declare a much higher use of electronic public procurement systems for offering goods or services than their European counterparts. According to our consultations with two independent public procurement experts, this might result from the fact that a lot of tenders in Poland are finalised with electronic auction, which is an additional stage after the actual tendering process. If this is the reason for such an impressive result, then we might deal with sort of the

misinterpretation of a survey's question. Electronical auction should not be considered as e-tendering because the main stage of e-tendering is bidding, which due to participants' preferences is most often conducted in a traditional way in Poland.

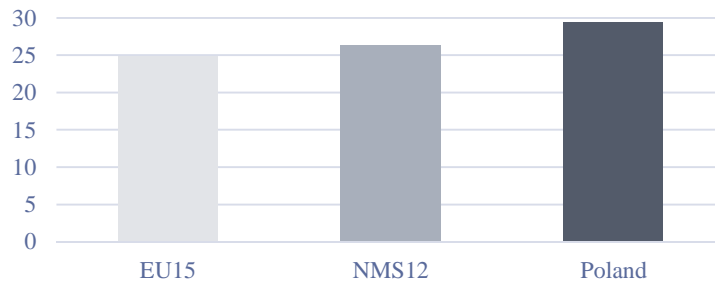


Figure 12. Percentage of SMEs using Internet for accessing tender documents and specifications in electronic procurement systems of public authorities (2013)

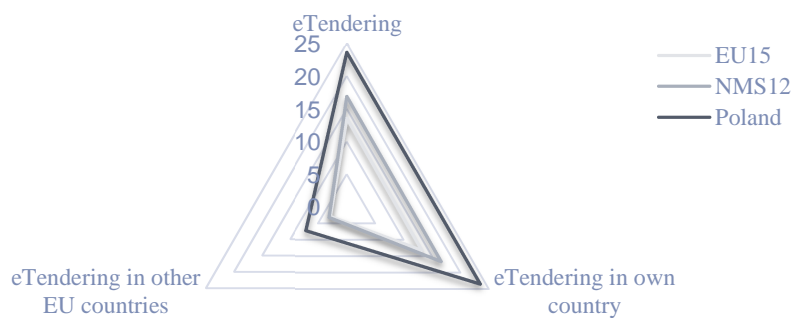


Figure 13. Percentage of SMEs using Internet for offering goods or services in public authorities' electronic procurement systems - eTendering (2013)

4. Summary and recommendations

Results of our study indicate that in comparison with other European Union members, Polish citizens, especially those with low education level, show a little interest in utilizing e-government services. These services are considered as obtaining information, obtaining forms or returning completed forms, using public authorities' websites. Use of e-government by Polish citizens mainly comes down to submitting income tax declaration, but still there is a big gap in comparison with other EU countries. The main reasons behind it are preferences (or a necessity) to

contact public administration by visits, as well as concerns about security of data to be transferred or a lack of sufficient digital skills. The main factors discouraging from using government websites are mostly a bad quality of provided information or technical failures. Furthermore, one of the most up-and-coming areas of e-government is e-health, which unfortunately has not been developed and popularised in Poland enough yet.

In the case of small and medium enterprises situation looks more promising, as Polish SMEs declare a relatively frequent use of such services as their counterparts in other European Union countries. Polish SMEs good performance in terms of use of e-government might partly result from top-down regulations which for example, obligate enterprises to report social contributions electronically. We also find, that Polish SMEs frequently declare using public authorities' electronic procurement system, especially for offering goods or services. Considering our consultations with two independent public procurement experts' this result may be caused by misinterpretation of survey's question.

For enhancing the use of e-government services, efforts from citizens and officials, as well as policymakers are necessary. The key is to perceive the role that digital technologies can play in improving the process of administrative matters. From officials' side, it is necessary to improve performance of public administration (central and local) services. It may be done by enabling an access to broader range of electronic services and information and generally, enhancing the interaction and communication with recipients. Citizens should become more engaged in governance and decision-making processes. It is also crucial to make a change in the attitude and approach for digital services by being more willing to use them, as digital solutions are aimed to improve quality of our life. Otherwise, if there is no desire for making each other life's easier, the whole transition process might affect us even worse.

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