

Analysis of the Development of E-government in Poland Compared With the World and the European Union Countries

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The paper focuses on the increasing development of e-services and an increase in interest in them. With e-government is developed, a collaboration between employees of public administration at different levels of the natural or legal persons according to their needs. The paper presents the electronic platforms of public administration services in Poland. The analysis of e-government was conducted based on selected statistics from reports prepared by the United Nations in 2010 and 2012. The data for the European Union and Poland are summarized in the table in order of occupied places in the ranking and evaluation of e-government and e-services in Poland on the background of world and the European Union are presented in the form of graphs.

Keywords: information society, e-government, e-services

Introduction

The recent years saw an increase in the range of administrative e-services made available and in the level of their development, as well as customers growing interest in them. E-government enables the development of cooperation between the personnel of public administration offices at various levels and legal and natural persons that settle their matters in such offices. Computerization of public administration brought tangible effects and benefits. It became possible to offer services which can be delivered at any time and irrespective of where the customer is based. This resulted in a significant increase in the effectiveness of administrative e-services made available and in a reduction of the costs of delivering such services (Banasikowska, 2008, 2011; Bliźniuk, 2007; Bogucki, 2005). The last years research shows how information and communications technology (ICT) influence into the economic globalization and build a highly connected world (Roztock & Weistroffer, 2009), especially in knowledge-based economy in such relationship between citizen and government (Olszak & Ziemba, 2009, 2011; Sołtysik-Piorunkiewicz & Banasikowska, 2013; Sołtysik-Piorunkiewicz, 2013; Sołtysik-Piorunkiewicz & Żytniewski, 2013).

The aim of this paper was to compare the development of e-government in the world and the European Union countries. The research methodology in this paper is based on analysis, synthesis, selecting and grouping data of the current United Nations E-government Survey of year 2010 and 2012, transnational comparative analysis, classification, and statistical analysis and graphics.

The Development of E-services Platform of the Electronic Administrative System in Poland

The basic aims of electronic administration are a fast exchange of information at all levels of administration, possibility of creating centralized databases, and clear and the same for all criteria for decision making. Electronic communication within a public administration office, between offices, and with customers in an electronic document flow is much faster than sending paper documents. It allows documents to be corrected fast and information about any changes, e.g., legal changes, to be received instantly. Computerization of administration should facilitate management thanks to transferring all archival data to electronic databases, archiving documents and cataloguing them according to certain criteria. Gathering databases in one place significantly influences the acceleration of administrative decision making. The decision-making criteria should be uniform so that they are clear, comprehensive, and the same—they should have certain procedures. In Poland, the basic communication and information system used for delivering administrative e-services is the national platform—Elektroniczna Platforma Usług Administracji Publicznej e-PUAP (Electronic Platform for Public Administration Services)—created as part of the project Plan for State Computerization for the years 2007 - 2010, designed to provide services to natural and legal persons by public administration units in an electronic way (see Figure 1) (Banasikowska, 2009, 2011; Bliźniuk, 2007; Grodzka, 2007; Witryna internetowa e-PUAP, 2012a, 2012b; Witryna internetowa MSWiA, 2013).

Electronic administration services play an important role, both for the state and the society. A continuous increase in public expenditures makes citizen interested in their effective use. In 2000, in the eEurope programme the European Union set down the programme for making public administration services available through the Internet. The aim of this programme was to deliver modern public services to citizens and to create a dynamic environment to conduct e-business (20 basic services, with 12 designed for natural persons and eight for legal persons).

ePUAP electronic platform of public administration services

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What is ePUAP?

Electronic Platform of Public Administration Services (ePUAP) is a coherent and systematic action program designed and developed to allow public institutions make their electronic services available to the public. The website www.epuap.gov.pl enables defining citizen and businesses service processes, creates channels of access to different systems of public administration and extends the package of public services provided electronically.

The website www.epuap.gov.pl provides citizens, businesses and institutions with a number of services intended to ensure smooth and safe communication between:

- customer to administrations (C2A),
- business to administration (B2A),
- administration to administration (A2A)

Project main objectives:

- to create a single, secure and electronic access channel to public services for citizens, businesses and public administration,
- to reduce time and lower the costs of sharing information resources and functionalities of administration domain systems.

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Figure 1. Electronic Platform of Public Administration Services e-PUAP. Source: Witryna internetowa e-PUAP (2012a).

The current state of the development level of the basic 20 administrative electronic services in Poland has been presented in Table 1.

The aim of e-PUAP is to try to transform Poland into a modern, citizen- and business friendly state by creating a favourable legislative, institutional and technological environment for the development of an information society and for the purpose of computerization of public administration.

Table 1

Level of the Development of E-services for Natural Persons and Legal Persons in Poland

Administrative electronic services for natural persons	Level of e-service development in Poland in %
Health care	50
Social services	46
Construction permission	51
Police—handling reports	25
Car registration	49
Identity cards	50
Employment agency	100
Information about changing the address	47
Public libraries	58
Documents from the births, marriages and deaths register office	47
Personal income tax	100
Enrolment at higher education institutions	59
Average level of the development of the service in %	56.83
Administrative electronic services for legal persons	Level of development of the e-service in Poland in %
Obligatory social insurances	100
Corporate income tax	100
VAT tax	100
Company registration	100
Submitting data to Central Statistical Office	100
Customs declaration	100
Environmental protection permission	43
Public procurement	50
Average level of the service development in %	86.63

Note. Source: Own work.

The implementation and gradual extending of the functionalities of the e-PUAP system will:

- (1) ensure fast settlement of formalities and undertaking new tasks that have not been anticipated;
- (2) improve decision making processes;
- (3) ensure savings in terms of staff number and financial savings, mainly in local government entities (Banasikowska, 2009, 2011; Witryna internetowa e-PUAP, 2012a, 2012b; Witryna internetowa MSWiA, 2013).

Local government administration comes first among all administration services in terms of the development of electronic platforms for contact with customers, as it is this administration that is responsible for providing basic social services. Thanks to an effective system of identifying citizens and objects of economic activity, the use of electronic signature and information system integration, a visit in a public administration office to settle an administrative matter should not be necessary.

However, the computerization of public administration and providing it with appropriate information and

communication technologies are not being implemented in the right way. In many public administration offices, the systems created are not integrated with systems in many divisions and offices or with other offices.

The European Union pays special attention to the development of the availability and level of administrative electronic services in its member states and therefore it checks whether administration and municipal services in individual states are implementing current programmes for stimulating e-government development. The implementation of the 20 basic administrative services (12 for natural persons and 18 for legal persons) is controlled by the information society director general (Bogucki, 2005).

E-government in Poland requires intensive actions on the part of public administration offices. The development of information and communication infrastructure and common access to it became the basis for the development of electronic administration. It is necessary to develop and implement uniform principles for the implementation of individual services and to adjust the legal system so that public services can be delivered through the Internet at the transactional level. The development of e-government should allow citizens and companies to:

- (1) access information through the website of a public administration office or institution;
- (2) access electronic forms that have been placed and are ready for download from websites;
- (3) receive completed forms through the Internet;
- (4) settle administrative matters in offices in a fully electronic way (from the moment of obtaining information through downloading and completing a form to making appropriate payments and receiving the official document applied for).

In order to ensure the proper development of e-PUAP, it is necessary to remove legal barriers. The current legal system provides for ways of an appropriate use of European Union funds for computerization-related aims. However, in the case of building and implementing a cross-sectoral e-PUAP system, which definitely enters both procedural and systemic area of public administration, Poland hasn't fully developed a proper legal framework that sanctions the functioning of this system in the administration structure.

The Analysis of the Development of E-government in Poland in the World Ranking

The ranking of the current state of the development of e-government in the countries across the world is provided in United Nations' surveys for 2010 and 2012 (United Nations E-government Survey, 2010; 2012) (see Figure 2 and Figure 3). The United Nations e-government development index (EGDI) is a composite indicator measuring the willingness and capacity of national administrations to use ICT to deliver public services. It is based on a survey of the online presence of all 193 member states, which assesses the different features of e-government national websites: technical, policies and strategies applied for delivery of e-services (United Nations E-government Survey, 2012).

The UN's surveys for 2010 and 2012 is based on the three criteria:

(1) online service index—scope and quality of on-line services based on selecting the appropriate site/URL at the national level, identifying ministerial websites, language limitations, data quality checks, a citizen centric approach;

(2) information infrastructure (telecommunication) index—information and communication infrastructure based on composite of five indicators: estimated internet users per 100 inhabitants, number of main fixed telephone lines per 100 inhabitants, number of mobile subscribers per 100 inhabitants, number of fixed internet subscriptions per 100 inhabitants, and number of fixed broadband facilities per 100 inhabitants;

(3) human capital index—adult literacy and gross enrolment.

Based on the date of EGDI, by using the graphic method it was the best representation possible to show the developments e-government in the world, with particular attention given to leading Asian countries (The Republic of Korea, Singapore), as well as given the opportunity to compare the development of e-government in Poland in the world ranking top ten countries.

The world development of national e-government shows the ten best numbers of index in 2010 and 2012 (see Table 2). There are some changes in the best ten of the countries in the world.

Table 2

Change of the Development of World E-government Between 2010 and 2012

Index of 2010	Change of position between 2010 and 2012	Index of 2012
1 Republic of Korea	0	1 Republic of Korea
2 United Kingdom	-3	2 Netherlands
3 Canada	-8	3 United Kingdom
4 United	+1	4 Denmark
5 Netherlands	+3	5 United States
6 Norway	-2	6 France
7 Denmark	+3	7 Sweden
8 Australia	-4	8 Norway
9 Spain	-14	9 Finland
10 France	+4	10 Singapore

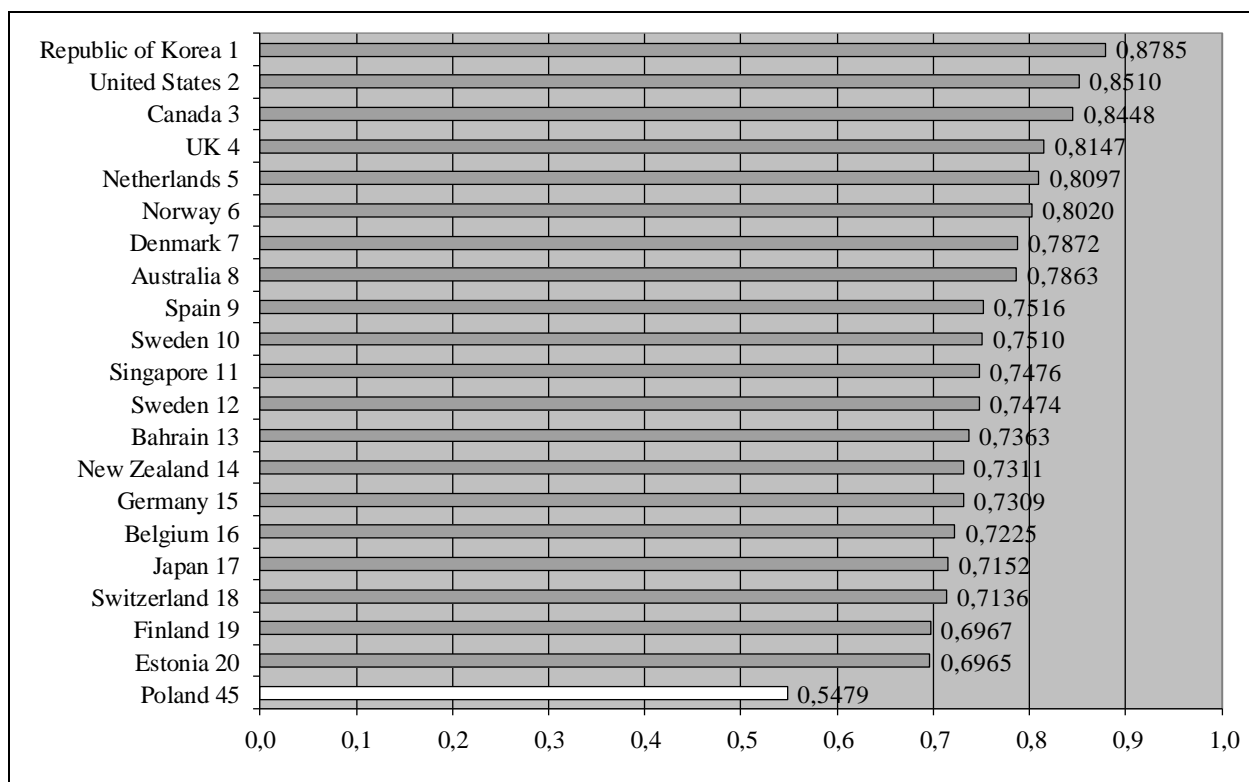


Figure 2. Ranking of the development of e-government in Poland compared to different countries across the world in 2010. Source: Own work based on (United Nations E-government Survey, 2010).

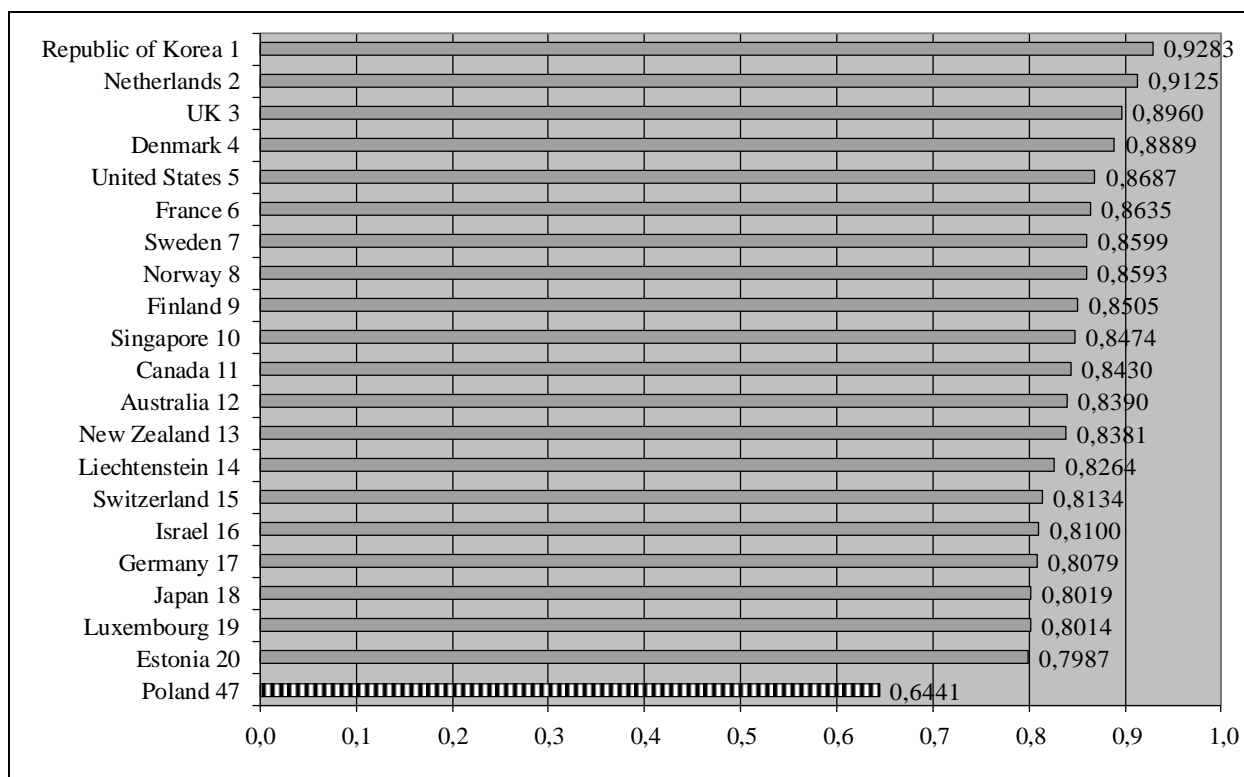


Figure 3. Ranking of the development of e-government in Poland compared to different countries across the world in 2012. Source: Own work based on (United Nations E-government Survey, 2012).

In the survey of the current state of the development of e-government for 2010, The Republic of Korea was situated on the first place (0.8785), and also in survey for 2012 (0.9283). Finland has one of the best change in 2012 survey (+10 positions) between 2010 and 2012. France has reached also the better place in the ranking (+4 positions). There are some good examples of changes of e-government systems: Netherlands, Denmark, Sweden.

Poland had lower e-government indexes in the 2010 and 2012 and was situated on 45 and 47 places.

The Analysis of the Development of E-government in Poland Compared With the European Union Countries

The comparative analysis of the development level of e-government and the delivery of administrative electronic services in Poland compared to the European Union countries was conducted based on the data from UN's surveys for 2010 and 2012 taking into account a place in the ranking based on the United Nations' surveys index.

The online services index, the ICT index and human capital index are the criteria of describing of state of e-government development. These three criteria are one of the most important dimensions of e-government. The research methodology shows also all the mathematical details of United Nations' surveys (United Nations E-government Survey, 2010; 2012). The Figure 4 presents data from the 2010 UN survey for Europe countries. The average value of United Nations' surveys index for 2010 is 0.6572. Poland had one of the lower index value: 0.5583 in Europe. Only Romania had the worst index value in 2010 in Europe: 0.5479.

The results of the analysis of data collected from the 2010 UN survey and the evaluation of the development of e-government in the European Union is presented in Figure 4.

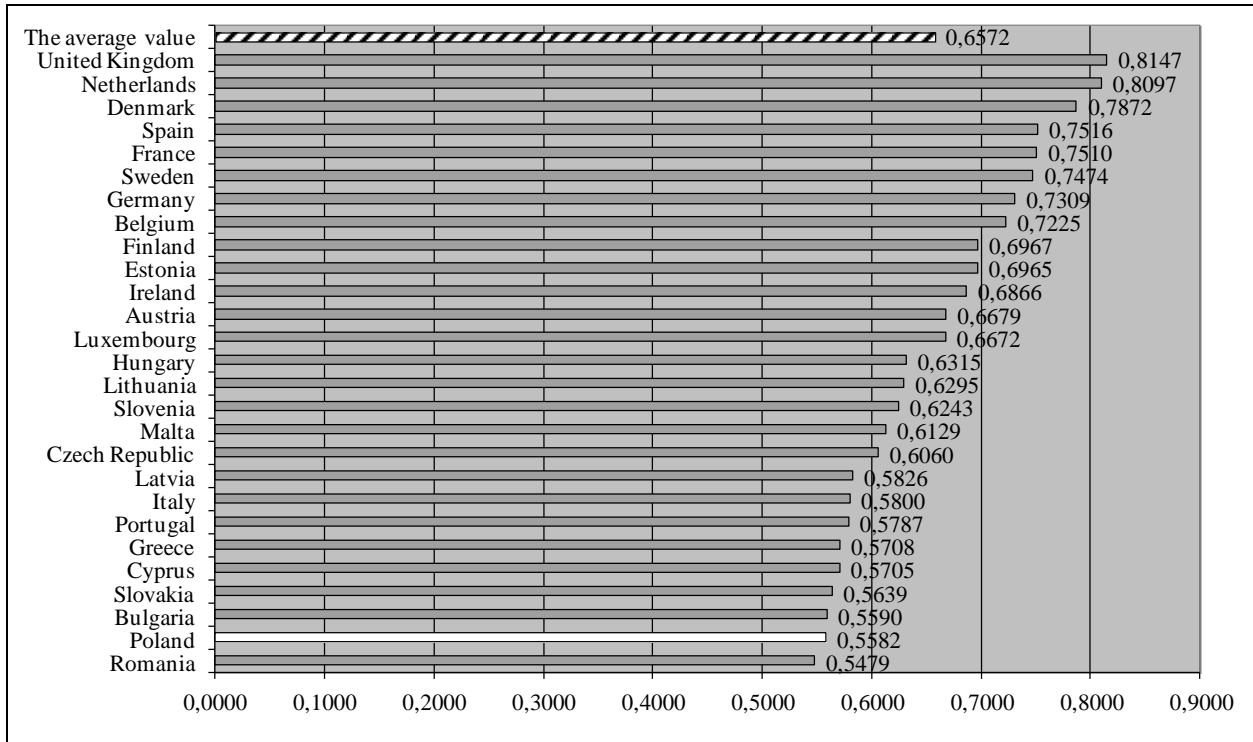


Figure 4. Evaluation of the development of e-government in Poland compared with the European Union for 2010. Source: Own work based on (United Nations E-government Survey, 2010).

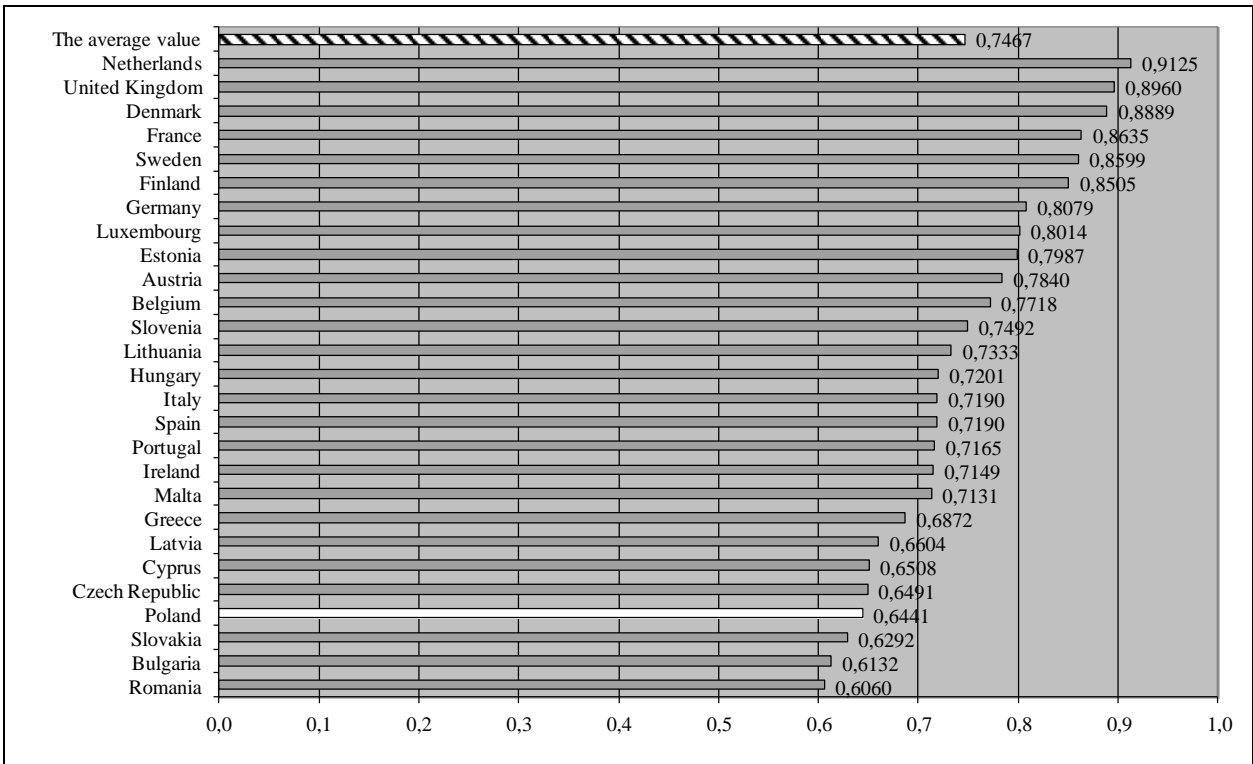


Figure 5. Evaluation of the development of e-government in Poland compared to the European Union for 2012. Source: Own work based on (United Nations E-government Survey, 2012).

The Figure 5 presents data collected from the 2012 UN survey according to the ranking of the development level of e-government and the delivery of administrative electronic services in Poland compared to European Union countries. Poland had better value of the United Nations' surveys index: 0.6441. The average value is 0.7467. The worst value of index have Slovakia, Bulgaria and Romania.

The results of the analysis of data collected from the 2012 UN survey and the evaluation of the development of e-government in the European Union is presented in Figure 5.

In the summary, it should be stated that Poland's position in the world ranking of the development of e-government fell from 45 in 2010 to 47 in 2012. However, when compared with other European Union countries, Poland occupied the next to last position in 2010 overtaking only Romania, whereas in 2012 it was higher in the ranking than Slovakia, Bulgaria and Romania. There is one of the aspects of world comparison where Poland takes one of the best place. It is the usage of social media and instant messaging. The mobile technology offers a good opportunity to extend public services to citizens, especially in developing countries like Poland.

Conclusion

E-government should provide administrative electronic services adjusted to the needs of customers. Customer-orientation can be achieved through face to face and online contacts as well as the access to numerous web features. The popularity of the Internet use in the operation of economic entities led to changing paper documents into electronic ones (e.g., e-invoices). In Poland, all (20) the main administrative electronic services are available, but the level of the development of some services allows customers only to obtain information or additionally download a form. It should be noted, however, that more and more services are available at the transactional level. Some services, due to legal requirements, cannot be delivered at the transaction level, e.g., matters related to an identification card, passport and similar, where a visit in person is required.

The difficulties on the way towards a faster development and the use of existing technical capacity and information systems include: the necessity of introducing changes to the infrastructure, changes in the processes of functioning of public administration offices and in the mentality of people working in such offices as well as changes in the mentality of those interested in using online services. The problem is also a lack of integration of systems within offices, lack of integration of these systems with other institutions from where data can be retrieved as required attachments to a request form for a given service. Excessive extension of forms (required documents that can be obtained in an office from external databases) is an obstacle which discourages potential customers from using electronic services.

E-government is based not only on computing and implementing of new technology. Poland is in the UN ranking so far away placed, but in the top ten of usage of modern technologies, like social media, mobile technologies, etc.. It means that there is sufficient access to modern technologies, but this state of art need to be changed, e.g., to prepare executives for the administration to carry out computerization, including functional analysis and office workflow, make the necessary organizational changes, algorithms for the management and procedures, analysis organizational architecture and the next—computerization and implementation of new technology.

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