The evaluation of the use of e-government in Poland and the EU

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Abstract
In the modern economy Internet plays an important role as communication and distribution instrument, and as such should be intensively used by the state administration to improve service to their communities. Using the electronic data interchange and documents, including the speed and effectiveness of their processing should become the basis for the functioning of each office. Poland still presents unsatisfactory level of development solutions in e-government compared to other European Union countries.

The main objective of this article is to assess the use of e-government by Polish society compared to residents of other EU countries. Moreover, the aim of this article is to present the concept of the improvement in the model of e-government, which includes internal and external conditions. The article presents the results of CAWI surveys conducted in 2012-2014.

Introduction
The contemporary economy uses the Internet as an important tool for communication and distribution, and as such it should be also used by the state administration to improve their services. Considering its speed and efficiency of processing, the use of electronic data and document transfer should become fundamental for the operation of every authority. However, comparing with other EU member states, the level of e-administration in Poland is still unsatisfactory. The article aims at assessing the use of e-administration by the Polish society. Additionally, the goal of the article is to present a concept for improving the development of e-administration while taking into consideration internal and external factors.

The article discusses findings of the 2012-2014 CAWI survey based on dynamic questionnaires and involving 220 internet users.

1. E-administration
The use of new technologies in public administration is called e-administration, which should be understood as using all information and communication technologies (ICT) to manage public affairs and maintain contact between administration and citizens.

There are a number of definitions pertaining to e-administration. E-administration can be considered as (Gisler 2001 p.19):
- part of broad e-business,
- advanced phase of digitalization of public administration,
- electronic option of New Public Management,
- electronic form of communication between public administration and citizens and businesses.

Contrary to the traditional administration, e-administration has the following features (Warkentin 2002 p.158):
- broad use of communication technologies,
- de-personified nature of the online environment, and the lack of direct face-to-face contact with a civil servant,
- ease in collecting information and its use by a number of authorities,
- necessity to ensure security of transactions and access to information in the web,
- use of the new communication medium.

Electronic administration comprises e-management, online democracy and electronic provision of services. While analyzing them we may assume four perspectives: recipient (interface with public administration), process (re-organization of administrative processes), cooperation (between administrative units, companies, investors and citizens), knowledge (information and knowledge management in public administration)\(^1\), as presented in figure below.

![Fig. 1. E-administration development process](source: author).

2. **Regulations concerning development of public e-services**

The first legal document providing a basis for developing an information society in Poland was the resolution of the Polish Parliament of 14\(^{th}\) July 2000\(^2\). Provisions introducing the idea of electronic administration to the Polish legal system are included in the Law of 6\(^{th}\) September 2001 concerning access to public information\(^3\). The Law requires to publish on-line the Public Information Bulletin (pl. BIP). Furthermore, the Law of 18\(^{th}\) September 2001 concerning electronic signature\(^4\) created a legal basis for using electronic communication on a larger scale while dealing with official matters. Next, the Law of 17\(^{th}\) February 2005 concerning the use of information technology in public entities\(^5\) provided for the functioning of the e-government. Other important documents that contributed to the development of e-government included: ‘ePoland – action plan for information society in Poland in 2001-2006’, ‘IT Strategy for Poland – ePoland in 2004-2006’, ‘Action Plan for E-administration in 2005-2006’, ‘Gateway to Poland’, ‘Information Technology Plan for 2006’, ‘Activity Program for Information Society’, and ‘Strategy for developing information society in Poland until 2013’.

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\(^3\) Law of 6\(^{th}\) September 2001 concerning access to public information, JoL no. 112 item 1198.

\(^4\) Law of 18\(^{th}\) September 2001 concerning electronic signature, JoL of 2001 no. 130 item 1450, as amended.

\(^5\) Law of 17\(^{th}\) February 2005 concerning use of information technology by public entities, JoL no. 64 item 565, as amended.
It should be emphasized that in the past 30 years, the European Union several times attempted to modernize public services. Under the current Europa 2020 Strategy, one of several flagship projects is the European Digital Agenda. It is designed to define the role to be played by ICTs for Europe to meet its goals by 2020. One of key goals regarding the public service is that 50% of citizens should use e-administration by 2015, of which over a half will use the channel to send various forms.

3. E-administration

ICTs created a possibility for more efficient and effective functioning of the public administration. The technologies provide for improved functioning, contribute to better services for citizens and in general enhanced quality of life. It should be emphasized that ICTs are more frequently used supporting government-citizen communication, which a basis for the development of e-administration. This has been recommended by the EU. According to the European Commission, it is necessary from economic, social, ethical and political points of view to strengthen social, economic and territorial cohesion by improving the quality of administrative services, among others, through providing such service on-line, especially in less developed regions.

Poland is still among countries of unsatisfactory level of e-administration comparing with other EU countries. A major problem faced by the state is the need to promote and push advancement of public e-services. This requires a comprehensive approach as well as properly identified needs and preferences among citizens in general and local communities in particular. Expedited development of e-administration and broad use of services offered by the public administration via electronic channels should lead to between, more efficient and effective operation. This should lead not only to more efficient services but also new ICT applications enabling meeting growing expectations among citizens.

The percentage of those people who use the Internet while dealing with official matters has been growing every year. In 2014, it increase by 18 percentage points if compared with 2013 and 23 percentage points if compared with 2012. Figure 2 below presents statistics regarding people who declared their interest in using e-administration by years.

![Bar Chart](image)

Fig. 2 Internet users declaring the use of e-administration in particular years in %

Source: author based on questionnaire survey

The number of Internet users surveyed with primary education who deal with official matters over the Internet has been growing. Inhabitants of larger cities and people with higher...
education at least declared their attempt to deal with official matters on-line. Particularly interesting is the fact that only 47.27% of the surveyed at 18–24 years old tried this form of contact with the public administration. It may result from the fact that the majority of young people do not need to use e-administration that often, so the number people trying that over the Internet will be lower than in the overall population.

As regards the efficiency of using the Internet to deal with official matters (Fig. 3), the majority of the surveyed (54%) successfully dealt with the recent official matter over the Internet. 27% of people surveyed admitted that their last attempts to deal with official matters over the Internet were at least partially successful, whereas 9% of the surveyed were not satisfied.

![Fig. 3. Efficiency in using Internet to deal with official matters](image)

Source: author based on survey

A major issue surveyed is the level of dissatisfaction as regards on-line services. The reason of that on-line services offered by the public administration over the Internet are incomplete. Results are presented in figure 4. However, the level of dissatisfaction is reduced compared to 2012 by 15 percentage points. Comparing with previous years a growing number of people surveyed pointed to the last of the factors, which is time (5 percentage points higher than in 2012). Although every year there is a growing number of people who indicate that forms are too complicated and unclear (from 17% in 2012 to current 24%), fewer people say that they have technical problems (25% in 2012 and 15% in 2014).
Fig. 4. Reasons of dissatisfaction regarding on-line services in %
Source: author based on survey

It is important that 2/3 of the surveyed declared that for certain or probably they would use on-line services provided by public institutions.

4. ePUAP

An important tool used by e-administration is the ePUAP platform. E-services platforms play a particular role in the process of adjusting IT systems to needs of the information society. They are the basis for solutions that enable interactive implementation of public and commercial tasks using electronic channels.

ePUAP is a nationwide IT platform for public administration and institutions to provide electronic services. The platform provides them with relevant technological infrastructure.

Capability of using ePUAP and trusted profile has been growing every year. Figure 5 shows percentage of people who are familiar with the platform. Each time the entire population surveyed was taken into consideration to determine the percentage figure.

Fig. 5. Knowledge of trusted profile and ePUAP platform in 2012-2014 in %
Source: author based on survey

The ePUAP platform is best known to people of 25-34 and 45-54. Older and younger Internet users (18–24 and 55+) do not know the platform that well. In terms of the education level, an exceptional group are people of higher education, and more than a half of them are familiar with the ePUAP platform.

5. Suggested e-administration model

The model is chiefly aimed at creating an integrated e-administration system. The following processes can be identified in the model:
1. Verification of stakeholder service processes,
2. Identification of stakeholder needs (society, companies, other public institutions),
3. Improvement of processes related to provision of e-services,
4. Cooperation regarding processes,
5. Digitalization of public services and improvement of existing e-services.

From the point of view of implementation of the e-local administration model, identifying and eliminating barriers will play a particular role. Actions taken should focus on improving the process in local governments.
The success of the model depends on knowledge and understanding of external conditions influencing it, including in particular economic, political and legal, social as well as technical, technological and organizational factors. The model is presented in figure 6.

![E-administration process model](image)

**Fig. 6. E-administration process model**  
Source: author

### 6. Benefits of e-administration

Introducing of e-administration aims at producing advantages benefiting both sides: citizens and companies as well as administrative bodies. This should lead to more efficient and faster operation of the administration, reduced operational cost and improved clarity of actions taken. Introduction of information technologies in administration should enhance quality of services provided, reduce formalities to expedite the process and reduce the cost incurred by the administration (Sibiga 2011), 7. Benefits from using technologies supporting interaction with administrative bodies include:

- Alternative communication channels, including web portals, mobile access through smartphones, IVR systems (*Interactive Voice Response*) where telephones are used to interact with a database using tone selection or automatic speech recognition systems,
- Optimized workload and reduced cues and waiting time since a citizen will not have to be present in person if not necessary,
- Special services for disabled, elderly, and people living abroad, etc.,
- Optimized and automated flow of information due to standardized documents and processes, and
- Effective cooperation between departments and administration units and other bodies.  
(Pawełoszek 2013, p. 152)

While analyzing benefits for particular bodies the following once need to be highlighted:

1. **Benefits for public administration:**
   - Improved efficiency of public administration by providing access to data in public registers and broader use of data at work – supporting cooperation between public administration bodies,
- Harmonized standards and improved quality of data and services in public administration,
- Openness and transparency of decision making process,
- Provision of services targeting actual needs of citizens, companies and more efficient use of domestic resources.
- Support for public administration development policy.
- Monitored implementation of regional and local policies and their consequences,
- Support for economic development,
- Use of modern IT tools in administration and development of information society,
- Improved effectiveness of administration management,
- Enhanced access to information.

2. Benefits for citizens and companies:
- Open public registers available for common use, strengthened development of knowledge-based society,
- Supported competitiveness of the economy, increased economic activity and development of new products – potentially increased revenues in companies.

7. Barriers for e-administration

The implementation of the model may suffer from a number of limiting factors, such as organizational, legal, economic, political, technological and social barriers. They may appear in various areas and stages of the implementation process and slow down the process.

Some of the most important limitations include primarily the lack of cooperation, harmonized standards for administration websites, low awareness among stakeholders as regards the use of ICT, need to look for information while dealing with matter over the Internet, and excessively complex implementation of on-line services. The major limitation is the access to ICT and will to implement processes using this particular mode of communication.

Yet another limitation for e-administration in local governments is the lack of clarity and functionalities of websites. In order to eliminate barriers it is particularly important to offer such services through a single website.

Apart from the above mentioned limiting factors for e-administration, the efficiency of its implementation depends on eliminating organizational and legal barriers. This can be solved by introducing regulations and amending laws to follow the development of ICTs. A serious social limitation is the lack of relevant IT skills among citizens and civil servants. This can be reduced by providing IT training. Another factor that may contribute to a failure of the model is mentality of both actors of the process.12 Additionally, mentality indirectly involves habits that citizens and civil servants developed as regards traditional forms of dealing with specific matters.

8. Summary

At the moment, in administrative practice, we may distinguish three levels of advancement in information sharing: informative, interactive and transactional. The first one of them is the unilateral transfer of information to citizens by administration (e.g. using web services or interactive kiosks). The second level involves uni- or bilateral individual communication (e.g. consulting, opinion survey). Finally, the third level of transaction is the full use of electronic channels to deal with a given issue from collecting information about the procedure, downloading forms, sending applications and receiving feedback.
The idea of e-administration solutions is based on a number of assumptions making access to information easier for citizens. This mission can be implemented through web information portals publicizing information and providing a possibility to use a wide range of services by citizens in a given region.

Technologies supporting such a cooperation generate a significant added value for users, which comprise such factors as: speed in accessing information, comfort, and possibility of filing standardized document in their electronic form. Apart from stakeholders, such as companies and individuals, benefits from electronic administrative services are derived by institutions concerned themselves. (Paweloszek 2013, p. 151)

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