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E-administration digital services in Poland

INTRODUCTION

In the XXI century, the services sector while growing faster and faster, is at the same time increasingly benefiting from the achievements of scientific and technical progress. In particular, the usage of ICT technologies in services causes changes, both in ways of providing them and the emergence of entirely new types of services or quality of services. Development of the services sector and information society boosts the process of providing public services via digital channels by the administration and the public sector units [eEurope..., 2002]. Service providers are aware of the fact that modern technologies allow improving the process of providing services, and also expand the range of services rendered. In turn, service recipients may use services provided electronically faster and in more convenient manner [Sarama, 2013, p. 351].

Intensive development of new ICT technologies has forced a creation of a new type of communication of citizens with the state (authority), and new solutions are defined as: e-administration or e-government. To a narrower extent, e-administration refers to creation of government websites to improve the quality of public services provided to citizens or work organization in an office that is using an electronic document flow. In turn, the term e-government should be understood more broadly as “the operation of public administration units assisted by teleinformatic systems and source databases aimed at fulfilling individual or collective needs of customers” [Osiński, 2008, p. 79]. E-governance enables the use of IT technologies by institutions in order to provide public administration services, exchange of information and communication, integration of various autonomous systems and services (G2C – Government to Citizen, government-citizen relationship, G2B – Government to Business, government-company relationship and G2G – Gover-

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nment to Government, government-government relationship) and integration of internal administration systems [Śledziewska, Zięba, (http), p. 3].

The development of e-administration is one of the key components of the process of building an information society. It is necessary due to the convenience of citizens, which requires the creation of many new technical solutions to handle specific tasks and needs associated with the e-government [Tadeusiewicz, 2007, p. 392]. The development of electronic administration in Poland has been included in IT implementation strategies developed since 2001, covering a series of activities (among others the Polish Gate platform, Public Information Bulletin and most of all the ePUAP platform²) [epuap..., (http)]. An important portal that provides public administration services is the obywatel.gov.pl, currently offering 144 services, including 30 online services [obywatel..., (http)].

Currently over 4.3 thousand internet websites of e-government operates in Poland. Various thematic platforms operate, e.g. Geoportal system – real estate market [geoportal..., (http)], Central Register and Information on Economic Activity³ [prod.ceidg..., (http)], or ZUS PUE Electronic Services Platform [pue..., (http)]. Also regional portals are created, made available and built only by specific local government units. Communal self-governments present themselves as the worst when compared to territorial self-government and state administration: 29% of communes do not provide any service electronically, and most often (41% of communes) they offer one to five services that can be fully implemented over the Internet [*Impact of digitization...*, 2014]. The report prepared by NIK states, that nationwide electronic services (BIP, ePUAP) are available virtually in all communes but only a few communes provide additional e-services [NIK, 2015].

In Poland, in the EU financial perspective (in the years 2007–2013), around PLN 4 billion was spent on IT implementation purposes [*We change the approach...*, (http)]. However, pace of execution of the IT implementation strategy – also within the area of e-administration – is still not satisfactory. Existing errors have been identified, such as:

- lack of citizens access to general information resources, which limits individuals in participation in public life;
- lack of repeated usage of the collected data, which limits business and functioning of public institutions and entities;
- systems and registers “do not see” each other and “do not communicate” with each other, the same information is collected in parallel and duplicated, which creates obstacle for citizens and administration;

² The ePUAP system was launched in 2008, then expanded to the current ePUAP2 system. In 2015, number of documents sent via ePUAP amounted to over 3 million (about 60,000 documents per week), with 1.2 million users. [epuap..., (http)]. According to the NIK report, only 1% of Poles have registered a trusted profile, which allows benefiting from e-government services [NIK, 2015].

³ The system run for entrepreneurs since 2011 (matters related to establishing / suspending / ending a business and other matters) regarding the functioning of companies and institutions.

– IT resource management is dispersed and decentralized, hence there is no control over expenses by the state.

As a result of such diagnosis, the Polish government adopted in September 2016 a document called „*Integrated State IT Implementation Program*”, which is a key plan determining the directions of implementation of IT solutions to the state as part of spending of public funds originating, among others from the Digital Poland Operational Program. The program assumes the centralization of management of ICT infrastructure and integration of resources, as well as the cooperation of existing and new public administration teleinformatic systems, eliminating at the same time the functionalities that have been duplicated. New and new ideas are emerging with regard to development of subsequent platforms for e-services. These are projects associated with customs service, common courts, geodesy and cartography offices, state archives [European Funds Portal, (<http>)]. Such action is to result in creating an efficient and coherent system that will contribute not only to the economic development of the country, but above all it will be convenient for citizens. Fulfilment of program objectives will be measured by the percentage of citizens and entrepreneurs making use of public administration e-services and the level of user satisfaction. At the same time, execution of projects related to implementation of new electronic services, development or modernization of teleinformatic systems should have a positive impact on the development of the entire IT industry [Program of Integrated..., (<http>)].

This article is aimed at determining the current level of use of e-administration services in Poland, taking into account the G2C – administration towards citizens interaction channel, and in particular, an attempt to explain which groups of society more willingly enter into and which are excluded from digital contacts with administration. On the basis of empirical data from Eurostat surveys, a comparative assessment of the use of digital administration services for EU-28 countries will be presented in the time perspective of the years 2008–2015. On the other hand, based on the GUS studies from 2015, social factors will be highlighted and indicated, which are favourable and unfavourable for an interaction with public e-administration.

THE SCALE OF USING E-ADMINISTRATION SERVICES

Electronic administration through the use of modern information and communication techniques allows increasing the efficiency of work of state administration units and improving the quality of services provided by them through, among others:

- providing possibility of dealing with official matters by electronic means (possibility of collecting forms and sending them to the office by electronic means);
- electronic data exchange between offices;

- sharing public information with customers on the websites of offices, portals or network databases;
- reducing costs of offices and increasing work efficiency; increasing the level of customer satisfaction from a promptly settled case, without a need to visit the office.

E-administration solutions should be characterized by transparency, accessibility, efficiency and modernity on the part of public administration and adequate skills of using them by individuals on the other part. This means that both service providers and service recipients should have appropriate technical and technological infrastructure as well as knowledge and competences of their use. Only then an active participation in digitization is possible.

At present, a measure of the development of information society is, among others the scale and pace of an access to e-services by citizens. It is, therefore, worth presenting and assessing the level of use of e-administration by individuals. The measurement of use concerns the issue of both an access and purposes of using e-administration services. As Eurostat statistics show, in the years 2008–2015 (more precisely, EU-28 countries) European citizens used digital services of the administration to various extent (see tab. 1) [Eurostat, (<http>)].

Table 1. Use of e-government services in the EU-28 in 2008-2015 (in%)

Specification	2008	2012	2015	Change (2015 and 2008)	Ranking 2015
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
European Union (EU-28)	35	44	46	11	–
Denmark	49	83	88	39	1
Estonia	37	54	81	44	2
Norway	72	78	81	9	3
Finland	62	70	80	18	4
Netherlands	61	67	75	14	5
Sweden	59	78	73	14	6
Luxembourg	60	61	70	10	7
France	48	61	63	15	8
Austria	51	53	57	6	9
Germany	44	51	53	9	10
Belgium	26	50	52	26	11
Latvia	20	47	52	32	12
Slovakia	40	42	51	11	13
Ireland	34	49	50	16	14
Spain	31	44	49	18	15

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
United Kingdom	40	43	49	9	16
Greece	13	34	46	33	17
Slovenia	35	48	45	10	18
Lithuania	22	36	44	22	19
Portugal	19	39	43	24	20
Hungary	28	42	42	14	21
Malta	25	41	42	17	22
Croatia	16	26	35	19	23
Cyprus	18	30	34	16	24
Czech Republic	19	30	32	13	25
Poland	22	32	27	5	26
Italy	20	19	24	4	27
Bulgaria	10	27	18	8	28

Source: own study based on: [<http://ec.europa.eu/eurostat/data/database>].

As can be found in the data summary, at present, the use of e-government services is common in countries such as: Denmark, Estonia, Norway, Finland and the Netherlands (the percentage of people using it in 2015 was 88% – 75%). However, the processes discussed do not look good for Poland, in the ranking of all EU-28 countries, Poland was ranked only 25th. Also in the area of assessing the pace of changes compared to 2008, the situation for Poland has improved only slightly. The biggest dynamics in the last seven years should be attributed to citizens of Estonia, Denmark, Greece and Latvia (increase from 44 to 32 percentage points). In Poland, the percentage of people using e-services has increased by only 5 percentage points, which classifies Polish society at penultimate position in the entire EU-28. The level of using e-services in Poland is much lower than the EU average. The situation is unfavourable all the more that in Poland individuals use less frequently, not only when compared with Western Europeans, but also with citizens of countries that have become members of the Union at the same time as Poland [Śledziwska, Zięba, (<http>)].

Therefore, it is necessary to diagnose the reasons for very low state of this process in Poland compared to the EU-28 countries, by analysing in detail factors explaining this state of affairs. The starting point for this will be a comparative assessment of the percentage of people using the Internet and using digital services of public administration. Referring to the latest GUS survey conducted in 2015 [GUS, (<http>)], the share of people aged 16–74 using the Internet in the last 12 months was 69.8%. On the other hand, the share of people using the Internet in order to use e-government services was much lower, it constituted only 26.6%, which directly indicates the considerable unfavourable distance and disproportion (see Figure 1).

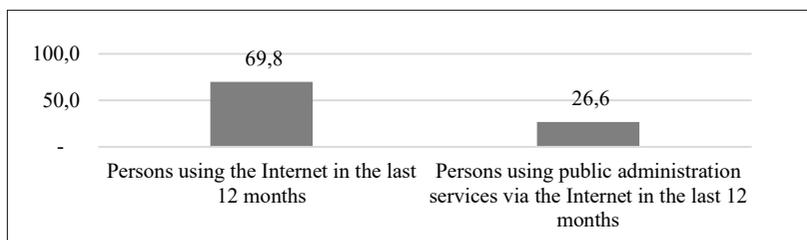


Figure 1. Internet users versus e-administration services users (in %)

Source: own study based on GUS data.

The use of e-services by individuals is the result of economic and non-economic conditioning, they also stem from the level of socio-economic development of the country, implementation of IT solutions to the society, openness to novelties, and mainly their needs. The use of particular e-services is diverse, since e-services meet the individual needs of people of various degree of urgency or frequency of use [Szopiński, 2012, p. 162].

In Poland, the use of G2C interaction channel by citizens changes considerably along with the age (see Figure 2). It turns out that in the group of youngest users (16–24 years) the Internet is used by almost everyone (98%), but only 21% are interested in e-services. In the next age group (25–34 years), a similar fraction of people uses the Internet (95%), and also the biggest number (45%) use digital administration services. In subsequent age groups, the percentage of people drops, both in terms of using the Internet and entering into digital interaction with the administration. The decisive leader in the use of e-services are young people (aged 25–34), the least included are older people (aged 65–74).

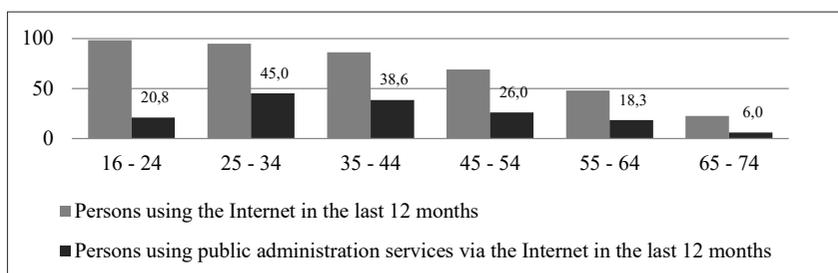


Figure 2. Internet users versus e-administration services users by age (in %)

Source: own study based on GUS data.

Also the purposes of using digital communication with the administration are diversified. Eurostat surveys from the years 2013–2015 show that the EU citizens use the websites of offices for three main purposes: to collect applications, submit completed applications and obtain information. Also in Poland, the areas and

directions of digital interaction of individuals with administration mainly concern these three channels. These are: sending completed forms (1); searching for information on websites of public administration (2) and downloading official forms (3) (see Figure 3).

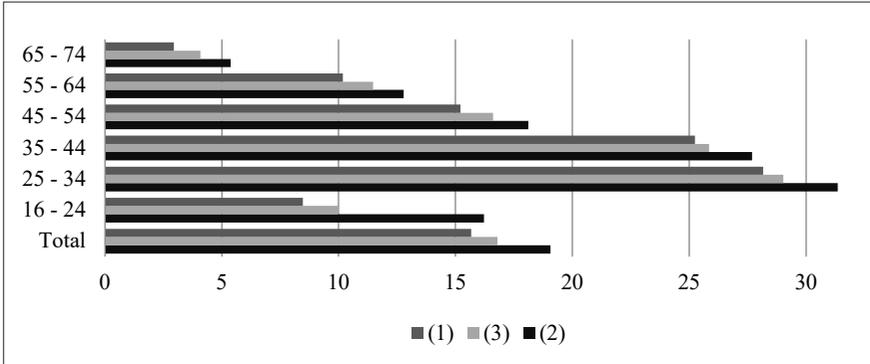


Figure 3. Purpose of using e-administration in general and by age (in %)

Source: own study based on GUS data.

Large dispersion in this area is indicated by the age structure analysis that explains in which age groups such differences are more and in which less apparent. Depending on the age, all forms are used, while the scale of this use changes (see Figure 3). By far, the biggest interest is aroused by browsing websites, and the smallest interests aroused by the sending back the forms already completed, however, the scale of their use is not too high, and decreases with age.

The frequency of using the Internet and e-administration services depends also on factors concerning level of education, income and place of residence. The level of education is directly correlated with the level of use of both the Internet and e-services of public administration (only 5% of people with low level of education to 62% of people with higher education) (see Figure 4).

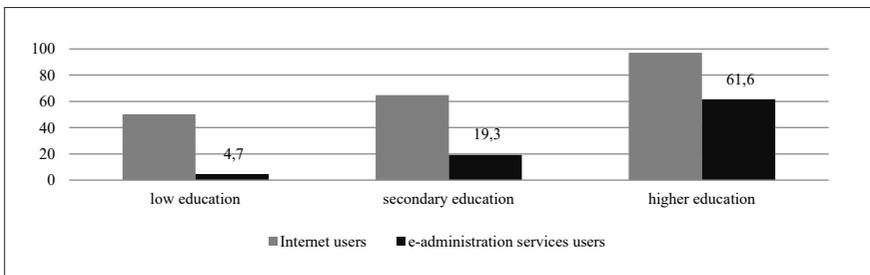


Figure 4. Internet users versus e-administration services users by level of education (in %)

Source: own study based on GUS data.

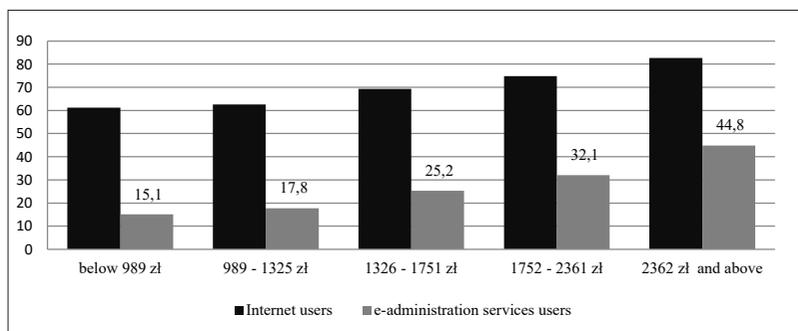


Figure 5. Internet users versus e-administration services users by income (in %)

Source: own study based on GUS data.

Revenue is another important factor determining the use of the Internet and electronic services. Taking into account the V and I target group, difference in the percentage of people using this type of services is almost 30 percentage points. Decidedly, along with the increase in income, one can observe an increase in usefulness of the Internet and, at the same time, an increase in usefulness of Internet services offered by public administration.

Differentiation also regards the scope of using digital services depending on the place of residence. A greater degree of urbanization indicates a greater fraction of those using digital techniques. In large cities, the fraction of those using public administration services via the Internet is over two times bigger than in the countryside (see Figure 6).

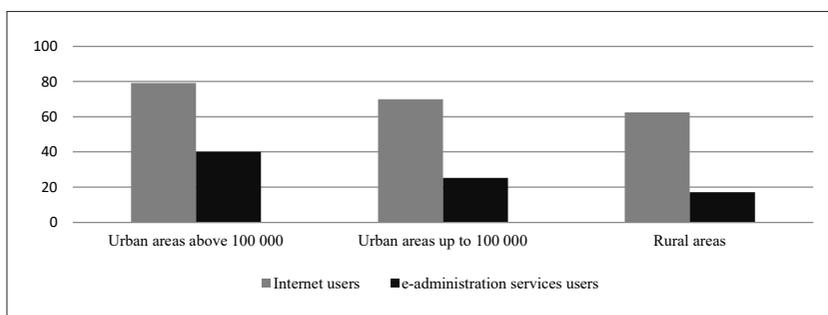


Figure 6. Internet users versus e-administration services users by place of residence (in %)

Source: own study based on GUS data.

Disproportions in using e-services are also present between regions in Poland. The central and southern regions are clearly dominant, the northern region of Poland turns out to be the poorest in this classification (see tab. 2).

Table 2. Internet users versus e-administration services users by regions (in %)

Listing	Central	South	East	North-Eastern	South-Western	North
Internet use	71.7	67.9	68.2	71.8	72.6	67.4
Use of public administration services via Internet	30.6	29.6	23.6	24.8	25.7	22.1

Source: own study based on GUS data.

There is no doubt that disproportions also exist within regions. The reason for these disproportions is the interaction of other factors considered as affecting digital exclusion (such as, e.g. gender, knowledge, skills). Individuals, although they have the opportunity to settle almost every administrative act at a convenient time, do not undertake such activity, which indirectly results from the lack of such need, and also certain competences of using the Internet or a computer.

SUMMARY

Extent of dissemination of ICT techniques and their impact on the quality of life does not raise any doubt. It results in the process of common digitization of digital services sector in the area of administration, which is currently the basis for social and economic development. Introduction of common e-services equals to raising the quality of life of the society and many advantages for public administration units. The analysis of empirical data in this field allowed drawing the following conclusions:

1. With the benefit of hindsight of the years 2008–2015, in individual EU-28 countries the scope and speed of using digital administration services is very diverse, and the percentage of societies in 2015 using e-services ranged from 88% to 24%.
2. In the ranking prepared for 2015, Poland was ranked 25 among the EU-28 countries, while in the assessment of the pace of changes in the years 2008–2015 it is ranked only at 27th place, thus the assessment of the level and scale of using e-services by Polish society compares very unfavourably and poor with European countries, and the distance to EU countries is growing.
3. A significant disproportion arises from the comparative assessment of the percentage of people using the Internet and using digital administration services – using the G2C channel is almost 3 times less than people using the Internet.
4. Reasons for low engagement in electronic interactions with the administration are connected with objective social and economic factors. These are: age, education, income earned, place of residence in the sense of degree of urbanization or the region of the country.

5. The most advanced in electronic administration services is the population of young people (aged 25–44) and people with a higher level of education. Also high income and inhabitancy in large cities represents a determinant of a higher percentage of people both active in the Internet and in relations with e-administration.

Due to slow pace of implementation in the field of e-administration in Poland, actions are taken aimed at accelerating the development of information society, which should also result in greater availability of e-services and the possibility of greater scale of using them. In 2016, the latest IT implementation strategy called “Integrated State IT Implementation Program” was introduced, the execution of which should lead to the fact that citizens will actually experience the positive effects of changes, and the program will contribute to strengthening and accelerating the development of the information society and civilizational and economic progress.

BIBLIOGRAPHY

- Commission of the European Communities, 2002, *eEurope 2005: An Information Society for all*, http://kbn.icm.edu.pl/gsi/eeurope2005_en.pdf (access: 3.09.2016).
<http://ec.europa.eu/eurostat/data/database> (access: 06.10.2016).
<http://mc.gov.pl/aktualnosci/zmieniamy-podejscie-do-cyfryzacji> (access: 8.10.2016).
<http://stat.gov.pl/obszary-tematyczne/nauka-i-technika-spoleczenstwo-informacyjne/> (access: 10.10.2016).
<http://www.epuap.gov.pl/> (access: 8.10.2016).
<http://www.geoportal.gov.pl> (access: 14.10.2016).
<https://obywatel.gov.pl/> (access: 14.10.2016).
<https://prod.ceidg.gov.pl/ceidg.cms.engine> (access: 18.19.2016).
<https://pue.zus.pl/portal/logowanie.npi> (access: 18.10.2016).
NIK, 2015, *Wdrażanie wybranych wymagań dotyczących systemów teleinformatycznych, wymiany informacji w postaci elektronicznej oraz Krajowych Ram Interoperacyjności na przykładzie niektórych urzędów gmin miejskich i miast na prawach powiatu*, <http://www.nik.gov.pl/kontrola/P/14/004/> (access: 10.10.2016).
NIK, 2015, *Świadczenie usług publicznych w formie elektronicznej na przykładzie wybranych jednostek samorządu terytorialnego*. Informacja o wynikach kontroli, Departament Administracji Publicznej.
Osiński J., 2008, *Administracja publiczna na progu XXI wieku. Wyzwania i oczekiwania*, Wyd. Szkoła Główna Handlowa, Warszawa.
Portal Funduszy Europejskich, funduszeuropejskie.gov.pl/strony/wiadomosci/znamy-e-uslugi-publiczne-ktore-beda-finansowane-z-programu-polska-cyfrowa (access: 10.10.2015).
Program Zintegrowanej Informatyzacji Państwa <https://mc.gov.pl/konsultacje/program-zintegrowanej-informatyzacji-panstwa> (access: 3.10.2016).
Sarama M., 2013, *Zróźnicowanie zakresu korzystania z wybranych e-usług przez mieszkańców woj. podkarpackiego*, „Nierówności Społeczne a Wzrost Gospodarczy”, z. 32, red. M.G. Woźniak, Wyd. UR, Rzeszów.

- Szopiński T., 2012, *E-konsument na rynku usług*, CeDeWu.pl Wydawnictwa Fachowe, Warszawa.
- Śledziwska K., Zięba D., *E-administracja w Polsce na tle Unii Europejskiej*, <http://www.delab.uw.edu.pl> (access: 20.09.2016).
- Tadeusiewicz R., 2007, *Problemy formowania e-administracji jako składnika społeczeństwa informacyjnego* [w:] *Od społeczeństwa industrialnego do społeczeństwa informacyjnego*, red. A. Siwik, Uczelniane Wydawnictwa Naukowo-Dydaktyczne, Kraków.

Summary

Common digitization of the e-services sector currently represents the basis for social and economic development. The development of e-administration is one of the key components of the process of building an information society. The paper presents the level of using e-services of public administration in Poland and EU-28 countries. The analysis covers empirical data of the GUS and Eurostat from the years 2008–2015. The scale of using the electronic citizen – office contact channel is very diverse in Europe. The term "information society" understood as the universal character of using both the Internet and e-services of administration refers to such countries as: Denmark, Estonia, Norway, Finland and the Netherlands where the percentage of people using e-services in 2015 amounted to 88%–75%. Polish citizens in rankings in this area of activity turn out to be definitely weak, placed at the last positions.

The paper attempted to point out some objective factors that explain this state of affairs. It turned out that the low level of use is determined and depends on the age of Internet users, level of education, place of residence or income earned in the household. The most advanced in electronic administration services is the population of young people (aged 25-44) and people with a higher level of education. Also high income and inhabitancy in large cities represent determinants of a higher percentage of those using the Internet and e-administration services. Those digitally excluded from this area, one is trying to activate through digital programs implemented since 2001, including the latest "Integrated State IT Implementation Program" adopted in 2016.

Keywords: Information society, Internet services, Information and Communication Technology, Digital Divide, e-government

Usługi cyfrowe e-administracji w Polsce

Streszczenie

Powszechna cyfryzacja sektora e-usług stanowi współcześnie podstawę rozwoju społecznego i gospodarczego. Rozwój e-administracji stanowi jeden z kluczowych czynników procesu budowy społeczeństwa informacyjnego. W artykule został przedstawiony poziom korzystania z e-usług administracji publicznej w Polsce i krajach UE-28. Analizie podlegały dane empiryczne GUS i Eurostat z lat 2008–2015. Skala korzystania z elektronicznego kanału kontaktów obywatel – urząd jest w Europie mocno zróżnicowana. Termin „społeczeństwo informacyjne” rozumiane jako powszechność korzystania zarówno z Internetu, jak i z e-usług administracji dotyczy takich krajów jak: Dania, Estonia, Norwegia, Finlandia i Holandia, gdzie odsetek osób korzystających z e-usług w 2015 r. wynosił 88% – 75%. Obywatele polscy w rankingach z tego obszaru aktywności wypadają zdecydowanie słabo, znajdując się na ostatnich lokatach.

W artykule próbowano wskazać na pewne czynniki natury obiektywnej, wyjaśniającej taki stan rzeczy. Okazało się, że niski poziom korzystania jest zdeterminowany i zależny od wieku użytkowników Internetu, poziomu wykształcenia, miejsca zamieszkania czy dochodów osiągniętych w gospodarstwie domowym. Najbardziej zaawansowana w usługi elektroniczne z administracją jest populacja ludzi młodych (w wieku 25–44 lata) oraz osób z wyższym poziomem wykształcenia. Także wysokie dochody i zamieszkiwanie w dużych miastach stanowią wyznaczniki wyższego odsetka zarówno korzystających z Internetu, jak i z usług e-administracji. Wykluczonych cyfrowo z tego obszaru próbuje się zaktywizować poprzez programy cyfrowe realizowane od 2001 roku, w tym przyjęty najnowszy w 2016 roku „Program Zintegrowanej Informatyzacji Państwa”.

Słowa kluczowe: społeczeństwo informacyjne, e-administracja, e-wykluczenie

JEL: L860, M150, M1, L8