



# Evaluation of e-Government Information and Services among Students in the City of Wrocław

## Jakość lokalnej e-administracji i poziom e-usług w ocenie wrocławskich studentów

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### Abstract

Undoubtedly, information and communication technologies (ICT) have brought tangible changes not only in the way people communicate on an interpersonal level but also with government offices. Hence, ICT are an enabling tool for the state government to rebuild its relations with citizens by providing better and easier access to the government-related information and services. The efficiency of ICT is acknowledged by almost all states and actions are taken to establish robust e-government system. Surveys, exploring benefits of the implementation of e-government, basically reach to positive conclusions about the consequences of implementation of e-government. It is argued that e-government influences reduction of administrative burden, decrease of repetition of the same administrative procedure, increase financial benefits for the state and citizens. Moreover, e-government increases satisfaction from

### Abstrakt

Technologie informacyjno-komunikacyjne (ICT) przyniosły wyraźne zmiany nie tylko w sposobie komunikowania się ludzi na poziomie interpersonalnym, ale także w kontakcie z urzędami. ICT są więc instrumentem umożliwiającym władzom państwowym odbudowę relacji z obywatelami poprzez zapewnienie lepszego i łatwiejszego dostępu do informacji i usług związanych z zarządzaniem. Skuteczność ICT jest uznawana przez prawie wszystkie państwa, podejmują więc one działania mające na celu stworzenie solidnego systemu e-administracji. Badania ankietowe korzyści wynikających z wdrożenia e-administracji, zasadniczo prowadzą do wniosków potwierdzających pozytywne konsekwencje jej wykorzystania. Argumentuje się, że e-administracja wpływa na zmniejszenie obciążeń administracyjnych, ograniczenie powtarzalności tych samych procedur, zwiększenie korzyści finansowych dla państwa i obywateli.

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the government by providing less time-consuming, easy and cheap e-services. However, currently there is still scarcity of data to what extent citizens are satisfied with e-government information and services based on the above-mentioned criteria. With the purpose of assessing the quality of e-information and e-services and satisfaction with them among the students an online survey has been run. 100 participants, studying at the University of Wrocław, Wrocław Medical University, Wrocław University of Economics and Business evaluated their access to e-information and e-services used by them on e-government website. The survey shows that most of the respondents are somewhat satisfied with e-information found on the local government website. When it comes to evaluation of e-services by three criteria; time effectiveness, cost effectiveness and user-friendliness (easiness), most of the respondents are not sure that e-services are less time-consuming or cheap compared to offline ones, while most of them find e-services quite easy to get.

**Key words:** e-government, e-information, e-services, case of Wrocław

Ponadto e-administracja zwiększa satysfakcję władz poprzez dostarczanie mniej czasochłonnnych, dogodniejszych i tańszych e-usług. Nadal jednak brakuje danych na temat tego, w jakim stopniu obywatele są zadowoleni z informacji i usług e-administracji opartych na wyżej wymienionych kryteriach. W celu oceny jakości e-informacji i e-usług oraz zadowolenia z nich studentów przeprowadzono ankietę internetową z udziałem 100 osób studiujących na Uniwersytecie Wrocławskim, Uniwersytecie Medycznym we Wrocławiu i Uniwersytecie Ekonomicznym we Wrocławiu. Ocenili oni swój dostęp do e-informacji i e-usług, z których korzystali na portalu e-administracji. Z badania wynika, że większość respondentów jest częściowo zadowolona z informacji znalezionych na samorządowej stronie internetowej. Jeśli chodzi o ocenę e-usług według trzech kryteriów: efektywność czasowa, opłacalność ekonomiczna i przyjazność dla użytkownika (wygoda), większość respondentów nie jest przekonana, że e-usługi są mniej czasochłonne lub tańsze w porównaniu z usługami offline, uważają natomiast, że są one łatwiej dostępne.

**Słowa kluczowe:** e-administracja, informacja elektroniczna, e-usługi, Wrocław

## Introduction

Over the last decade Information and communication technology (ICT) has become an integral part of citizens' everyday life and have brought fundamental changes in the whole society structure, values, culture, economic, and politics. Among numerous transformations ICT changed the way citizens and government interact by providing new technology-based platforms for communication which makes decision-making process more effective, transparent and inclusive. The widespread use of ICT by the governments, policy makers make digital democracy broadly discussed concept all over the world. The functional usage of ICT by the government and policy makers has the power to enhance democratic values "...by increasing the transparency, responsiveness, reliability, and integrity of public governance", moreover e-government supports and enhances

“the fundamental freedoms of people such as freedom of expression, privacy and right to the protection of personal data” (European Union 2017). Importance of e-government is acknowledged by influential international organizations such as UN (United Nations 2018), EU (EU 2016), OSCE and annual reports are prepared with the attempt to underline the overarching impact of ICT on democratic institutions, democratic decision-making processes and their power to improve government-related information and services, to increase civic participation by providing e-participation tools. The scientific interest towards e-government is progressed as well. More and more scientists and scholars become interested in e-government, e-services, e-participation as digital transformation considers one of the important aspects of modern society with the potential to increase transparency, openness and trust in government, effective service delivery which will lead to effective performance of state government and greater participation (Jansen and Ølnes 2016), (Bruno and Brussels 2015), (Hernandez and Roberts 2018). What refers to Poland so there are several studies referring to e-administration in Poland. One of the recent studies in the relevant field is directed to measure the level of digitalization of public administration and to provide data how many companies tend to use online form of public administration (Świątek 2019). In the research the author concludes that there is a high demand of e-services among entrepreneurs in Poland. Another recent research done by Ziemia E., Papaj E. and Descours D. (Ziemia, et al. 2014) assessed Polish e-government portals according to the following criteria: functional stability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability. The research basically examined three portals carried out by municipal and district authorities; SEKAP (Silesian Voivodship, <https://www.sekap.pl/home.seam>), Digital Malopolska (Malopolska Voivodship, <https://www.malopolska.pl/aktualnosci/bez-kategorii/wrota-malopolski>), the gate of Podlasie (Podlaskie Voivodeship, <https://cu.wrotapodlasia.pl>). As authors claims currently Polish e-government portals are in the process of improvement. All the mentioned portals currently provide fewer e-services than the number of e-government services delivered by an individual government unit with less efficiency. The portals require reconstruction in functionality. In means that portals currently do not deliver complete list of e-services at different levels. On the other hand, research shows that portal provide high level of security (data protection). Although currently research on the topic of e-government in Poland is conducted, however the found research were not directed to evaluation of e-services from the angle of service consumers.

The creation of robust system of e-government is a priority policy for almost all countries, regions and cities. Socio-economic development is not possible without an effectively operating government (public administration) and especially an electronic government (e-government). Krzysztof Izdebski mentions that “governments are ‘naked’ without technology” (Izdebski 2020).

In other words nowadays technologies are another kind of power owned by governments.

**Research objectives are:**

- to explore importance and role of e-government information and services in modern societies,
- to assess the quality of e-government information and services for students studying at Wroclaw universities,
- to provide an empirical data on quality of e-government information and services.

**Research Hypothesis:**

- e-Government websites provide satisfactory information 24/7.
- implementation of e-government is cost-effective, easy and delivered on time for the students in Wroclaw.

**Methodology:** Existing literature on e-government in the context of political engagement and citizens empowerment is used to compare different theoretical arguments on effectiveness of e-government tools for the state and citizens. Quantitative research methods are included for understanding and evaluating effectiveness of e-services among students. An online questionnaire was conducted. Social media was used as a main channel to disseminate the survey.

## 1. The Concept of e-Government

E-government is referred as the use and application of ICTs in public administration for better management of data and information, better delivery of public services, as well as for new ways of citizens-government interactions and communication channels with the aim of enhancing engagement and people empowerment (UN 2014).

According to the World Bank report Implementation of e-government brings more benefits to states and citizens than merely providing a web portal of public services through the use of the Internet. E-government stands for involvement of all citizens in public decision-making process, leads to building more accountable government with less corruption and increased transparency, promotes sustainable development (World Bank 2002). The fundamental function of e-government is to create a mutually beneficial network between government bodies and their stakeholders in order to provide information and deliver public services at national, provincial and local levels through Government to citizen (G2C), Government to business (G2B) and Government to government (G2G) (UN 2003).

G2C provides online platform for government-citizens interaction which gives more access to information concerning government activity and help to deliver services to their customers/citizens, and to empower them to take part in decision-making process. G2B includes transactions and provision of online business-focused services between business sector and government (payments, purchase of goods and services). G2G facilitates interaction between government departments and allows them to share electronic data and information at national and local levels.

From political point of view the revolutionary and transformative role of the internet and ITCs are the democratization of politics and society. Electronic tools such as e-mails, e-forums, e-polls enable citizens to take their part in setting an agenda for democratic change. The internet is considered as an interactive and creative tool which enables to transform citizens from passive followers to active participants (UK Cabinet Office 2002). Moreover, the internet and ICT are seen as instruments which will provide equal platform and network to create collective products, processes and decisions and offer technological fix to problems of citizens' political activity and trust in the government initiatives (Van Dijk 2012). These changes which are contributions of e-government has changed the ways people perceive democracy and gives new opportunities to contribute to the process of decision-making which is important to them. Some scholars argues (Reddick and Aikins 2012) (Abu-shanab 2017), e-government increase effectiveness, efficiency and inclusiveness democratic processes and strengthen democracy by enabling citizens' access to more government-related information and services, promoting participation in political decision-making process, make governments more transparent, accountable, accessible, and responsible, thus reducing the level of corruption and leading to good governance.

E-government implementation is a complex and time-consuming process. It demands an elaborated and comprehensive policy to achieve successful digital transformation due to which citizens can save time and resources to get government-related services in an effective way. According to UN surveys (UN-DPEPA, 2002), (UN, 2003) governments go through the following stages.

**Emerging:** This is the primary stage of e-government implementation; represented information is limited and basic. An official government website, a national portal or an official home page is used to address the information or to make some documents (e.g., Constitution) available online. Links to ministries/different public departments, regional/local government and branches may exist.

**Enhanced:** At this stage, a greater variety of archived documents may be available such as strategies and policies, budgets, laws and regulations, reports, and online database. Still exists one-way interaction (G2C).

**Interactive:** Several downloadable forms (tax payment, license renewal etc.) are available, sites share updated information with greater regularity. Citizens can directly contact government officials via e-mail, fax, telephone and post.

Although at this stage there is no enhanced interaction between the government and citizens some form of input from the public is admitted through provision of e-mail and other contact information.

Transactional. At this stage two-way interaction emerges and a larger variety of e-enabled services are available. Users can pay taxes or for other public services, apply for personal documents and conduct other C2G interactions electronically.

Seamless / Networked. At the final stage e-government implies the existence all services online enables citizens to participate in decision making process, facilitating citizens' social inclusion and formulating two-way dialogue between citizens and public sector (UN 2002, UN 2003).

The level of implementation and performance of e-government depends on several factors. Obviously additional human resources, additional skills, higher level of e-Literacy among employees and citizens, new policies and plans are required for more effective and efficient performance of e-government. The foremost benefit from the e-government for the government and citizens is the potential to reduce administrative burden, to deliver quality public services with less cost in a short period. Based on these criteria "Tell Us Once" program only for sharing information regarding births and deaths adopted by the government of United Kingdom can be examined. The supposed advantages are – small scale of implementation, fewer numbers of transactions which are available mostly online and the opportunity to apply offline. This apparently will decrease administrative burden and deliver public services on time. The UK has a quite successful experience of implementation of digital government (according to UN e-government Survey 2018 the UK is among top 10 countries with the highest rates of e-government implementation and e-participation). In regards of cost-effectiveness, the UK Government Digital Efficiency Report assesses digital transactions 50 times cheaper than face-to-face ones (Government of the UK). The online Government allows citizens to receive services not only without visiting public offices, but also with lower cost (e.g. passport, first provisional license is about £9.50 cheaper than applying by paper form or by post).

As it can be assumed the implementation of e-government brings not only monetized benefits, but also non-monetized for users and governments. E-government is an effective tool to improve service delivery in an effective way. Consequently, the implementation of e-government enhances citizens' satisfaction, their involvement and equal opportunities for all.

## 2. e-Government Initiatives in Poland

Polish Government adopted the idea of e-governance in 1991 with the cooperation of Polish Information Processing Society<sup>1</sup>. In 2000, based on resolution to develop information society in Poland, approved by Polish Parliament, Council of Ministers adopted the document “Goals and directions of the development of Information Society in Poland” defining strategies, objectives and arrangements for information society development. Later, following information society development strategy, the Ministry of Economy developed “e-Poland Strategy-Action plan for the development of information society in Poland for the years 2001–2006” adjusting e-Europe initiatives to the Polish society. Another strategic document “Information Technology Strategy of the Republic of Poland – ePoland” published in 2003 by Scientific Research Committee in accordance with Lisbon Strategy<sup>2</sup> and the e-Europe initiative<sup>3</sup>. In addition, in 2004 the Ministry of Science and Information Technology (was active from 2003 to 2005) as a continuation of information society development concept developed two documents; the “Action plan for the development of the electronic administration (eGovernment) in 2005–2006” and the “Report on proposed directions for the development of the information society in Poland by 2020” (Sztrop-Rutkowska, et.al 2019).

As in many countries, in Poland as well, apart from documents and adopted policies, institutional changes and adjustments have been undertaken to support the development of information society, to establish coordination and collabora-

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<sup>1</sup> The Polish Information Processing Society (PIPS ) is a professional organization representing people who work in the IT. From its beginning the PIPS fosters links between experts from industry, academia and business promoting education, knowledge sharing, codes of conduct and skills frameworks. PIPS is the largest professional association in Poland dedicated to advancing technological innovation by promoting the study and application of computing technologies. Available on: <https://pti.org.pl/about-us/> 02/ 03/ 2020

<sup>2</sup> The aim of the Lisbon Strategy, launched in March 2000 by the EU heads of state and government, was to make Europe decade “to become the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment”.

Available on: <https://portal.cor.europa.eu/europe2020/Profiles/Pages/TheLisbonStrategyinshort.aspx> 02/03/2020

<sup>3</sup> eEurope is a political initiative to ensure that the European Union fully benefits from the changes which the information society is bringing. The key objectives of the initiative are: to bring every citizen, home and school, every business and every administration into the digital age and online; to create a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas; to ensure that the whole process is socially inclusive, builds consumer trust and strengthens social cohesion.

Available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3A12422102/03/2020>

tion between government agencies, to integrate different administrations' online services at all levels of governance, to lead e-government policy making and implementing process. In 2001 a new department of Informatization was created by the Government. In 2015, with the decision of the Council of Ministers the new Ministry of Digital Affairs was created. It was transformed from the Ministry of Administration and Digitalization (2011–2015) with the aim to facilitate interactions between state, citizens and entrepreneurs due to digitalization and innovation, to provide more citizen-centric, accountable, beneficial and empowering services to citizens.

In order to foster digitalization, to have digitally skilled society which can benefit from available e-services, e-government, e-justice, e-health, e-energy, e-transportation Ministry of Digital Affairs cooperates with international partners and brings its input into creating developed digital single market on EU level. Cooperation in the framework of digital single market helps EU countries to implement e-enabled opportunities in a most effective way and facing transformational changes. The aims of creation of digital single market are to ensure easy access to online activities, to provide fair competitive conditions, consumer and personal data protection wherever individuals and businesses are. Successfully established Digital Single Market will help European companies to develop globally and ensure Europe's leading position in digital economy (COM, 2015).

Currently, there are more than 500 e-services available in Poland including ID card applications, report on ID loss, checking penalty points on driving license, starting business. E-services make administrative processes more open and transparent for citizens, emphasizing the importance of citizens' personal data protection and security on the internet<sup>4</sup>.

According to UN e-government survey Poland is the 33rd on the list among leading countries in e-government development surpassing European countries such as Greece, Slovenia, Lithuania. Thus, Poland appears on the list of countries with very high level of e-government development index (EGDI), improving its online presence and services (UN, 2018).

The survey published by McKinsey & Company (McKinsey 2015) reports that for Poland digitalization can bring up to €64 billion economic benefit in additional gross domestic product (GDP) by 2025. This will have positive influence on country's economic competitiveness and residents' prosperity making Poland one of the digitally developed economies in Europe by providing 15% growth of digital economy. Currently, Digital Market of Poland stays behind in comparison with Digital Frontrunners (Belgium, Denmark, Estonia, Finland, Ireland, Luxembourg, the Netherlands, Norway, and Sweden) an EU Big five

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<sup>4</sup> Ministry of Digital Affairs of the Republic of Poland, <https://www.gov.pl/web/digitalization/what-we-doi> , 03/03/2020

(France, Germany, Italy, Spain, and United Kingdom). However, in the same report it is evaluated that due to economic growth strong foundations Poland has the potential to become one of the ten Digital Challenger markets in Central and Eastern Europe. Poland has higher rate of digital financial services, better digitalized transportation and warehousing than other Central and Eastern Europe countries, while in some other areas, such as participation rate in adults learning, effective usage of digital tools by companies for borderless e-commerce Poland still has to make efforts to provide better digitalized services.

Thus, due to the internet virtual space has been created and the amount of exchanged data and information are higher than ever before. The occurred processes and digital penetration into new spheres of everyday life and work bring about demands for new analysis and evaluation for digital society. New information infrastructures and technology-based services challenge societies to establish correspondent national and transnational regulations for information and services. The core question is how to combine effectively data protection and state surveillance on the one hand, and exercise of democratic rights and freedoms on the other.

### **3. e-Information and e-Services in the Opinion of Students at Wroclaw Universities**

#### **3.1. Methodology of Own Research**

As it is discussed in this paper citizens' satisfaction with the performance of the government is very important indicator for democratic countries, little research conducted to evaluate citizens' satisfaction with available e-information and e-services. This paper is aiming at filling the mentioned gap and for that purposes an online survey was prepared. The survey was conducted among 100 participants, and it was directed to find out to what extent students, studying at University of Wroclaw, Wroclaw Medical University, Wroclaw University of Economics and Business, tend to use self-government website to get government-related information and service. Social media was served as a main channel to disseminate the survey. In order to reach a target group students groups of the mentioned universities were used throughout March in 2020. The aim of the research is to evaluate the satisfaction from e-information based on respondents' experience answering questions such as how useful the information was or to assess the quality of information found. Regarding e-services, three criteria were chosen: on time delivery, cost-effectiveness and easiness. Respond-

ents were asked to evaluate separately their own experience of using e-services according to the mentioned criteria.

### 3.2. e-Information – Analysis of the Research Results

E-information is a one-way relationship where governments provide and distribute citizens with public information and gives open access to information without or on their demand through websites and e-newsletters. This includes active attempts by governments to disseminate government-related information on issues, while citizens have passive role. E-information is critical because without access to publicly held information, participation cannot be reasoned, fully relevant, or significant. As online provision of government-related information is one of key factors of e-government a group of questions of the survey were formed in order to assess students' opinion on available information on the local government website. The results presented in the chart below.

#### 1. Evaluation of the access to e-information among students at Wroclaw universities

<b>1. How many times did you use local government website last year to get information related to local government?</b>				
Several times in a month	Several times in a year	1-2 times in a year	Never	Do not remember/ No answer
9%	59%	1%	18%	18%
<b>2. Based on your experience of searching government-related information online to what extent the information was useful?</b>				
Highly useful	Somehow useful	Not so useful	Not useful at all	Do not know/ No answer
11%	68%	6%	1%	14%
<b>3. How would you rate the overall quality of information provided by the local government website</b>				
Excellent	Good	Fair enough	Poor	Do not know/ No answer
2%	36%	34%	12%	16%
<b>4. How would you rate your satisfaction with the content of information you have received from the local government website?</b>				
Very satisfied	Somehow satisfied	Not very satisfied	Not at all satisfied	Do not know/ No answer
8%	60%	14%	1%	17%

Source: own elaboration based on the survey „E-information and e-services in Wroclaw” conducted among students studying at the University of Wroclaw, Wroclaw Medical University, Wroclaw University of Economics and Business, between February-March 2020, N= 100

Overall, participants evaluated their access to available e-information positively. Most of them (68%) found the information somehow useful and most of them were satisfied with it. Based on the findings, it can be assumed that there is noticeable relationship between the content usefulness and satisfaction. On the other hand, it is evident from the fact that the content quality still requires improvement. And the fact that the vast majority finds the information “somehow useful” and assess their satisfaction as “somehow satisfied”, gives ground to assume that available information is not complete, and it is not always possible to get government related accurate information 24/7.

### 3.3. e-Services in Poland

Citizens’ satisfaction from e-government is based on service and content quality, citizens’ trust in e-government transactions and belief that online services are easy-to-use. The level of citizens’ satisfaction depends on factors how ease government portals are for the use and to what extent online platforms are working without errors. Satisfaction is also directly connected with the opportunity to find complete, accurate, objective information on accessible platforms. (Yap and Ahmad, 2017), (Welch 2004).

Efficiency of e-government depends on e-services and many researchers attach a lot of importance to them emphasizing their role in the process of adoption and implementation of e-government. Davidson, et al., mention (Davidson, Wagner, and Ma 2005) “e-government should encourage digital loyalty” which means to provide e-services in a way that citizens give precedence to online forms over other forms. Some other researches underline the role of portals in providing integrated services and highlight that portals are key elements of e-government activities which help to provide single access to e-services promoting cooperation of different agencies (Daniel and Ward 2006).

In Poland, as in other European countries, providing user-centric online services for citizens and for business sector is pivotal part of the implementation e-government. User-friendly e-administration, access to online public services and easily reachable online information and digital services is priority point for the Ministry of Digital Affairs of Poland. The interaction between public administration offices and citizens most often occurs related to exchange of information, tax or business-related services, public health and environmental issues<sup>5</sup>.

Advantage and value of digitalized public administration is transparency and open operation of the government (Bertot, Jaeger, and Grimes 2010). To support

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<sup>5</sup> Ministry of Digital Affairs of the Republic of Poland, <https://www.gov.pl/web/digitalization/about-us1>, 03/03/2020

the development of Information Society and to make electronic services available to the public since 2008 by the Ministry of Interior and Administration designed and operated ePUAP (Electronic Platform of Public Administration) ePUAP is a single electronic channel of electronic services for citizens, businesses and institutions. The aim of the platform is to provide functional e-services and facilitate communication between customers to administration (C2A), business to administration (B2A), administration to administration (A2A). Main objectives of ePUAP are to ensure common platform of electronic services which are available in reduced time with lower costs. The project cost (32 million PLN) is financed by European Regional Development Fund (75% of all costs) and national co-financing (25%).<sup>6</sup> The platform provides easy access to online services of different fields; health, education, social insurance, employment, etc. However, it worth mentioning that, despite large variety and number of the e-services provided by the mentioned platform all the services are available only in Polish. Thus, language barrier makes the website not user-friendly for foreigners, migrants, refugees who have no or low level of Polish language knowledge. When it comes to evaluation of the effectiveness of the portal there is no data available on how many people use online services through the platform annually or which services are the most required by Polish citizens. The effectiveness of the platform among citizens is not assessed yet.

It is also worth mentioning, that while it seems that in Poland e-services are not popular among Polish citizens or some portals are not-user friendly enough, e-banking system shows high efficiency. Most Polish banks card holders (about 33 million) have got a possibility to using e-banking in 2018. About 15 million were used e-banking at least once in a month. The provided data shows that the number of people having access to e-banking and number of people who use e-banking is growing.<sup>7</sup> One reason can be trust among residents in Poland towards e-banking system and are interested in doing official matters on-line.

In Poland, based on the data provided by Eurostat, the number of individuals using the Internet to interact with public authorities, to get information, to download official forms to send filled forms is lower than EU average. In 2018 only 36% of Polish citizens used the internet to interact with public authorities. Although the number of those who use the Internet for interaction with public offices is twice as low as in other EU countries, compared with 2016 the number of users in Poland approximately doubled in 2018. Similarly, a progress is registered in the use of sending back filled forms to public authorities. Low increase is recorded also in regards with the use of download-

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<sup>6</sup> ePUAP, <https://epuap.gov.pl/wps/portal/english> 24/03/2020

<sup>7</sup> Polska bankowość w liczbach. <https://prnews.pl/raport-prnews-pl-rynek-bankowosci-internetowej-kw-2018-435269> 25/03/2020

able forms from websites of public authorities. In the opposite, in 2018 only 20 percent of Polish residents used the Internet to get information from public authorities, while in 2015 in Poland 35 percent of people use the Internet for the same purpose and it was approximately equal to other EU countries (ISA 2, 2019).

Śledziewska, et al., (Śledziewska, Levai, and Zięba 2016) mention that in Europe citizens mostly use the Internet to get information, to download official forms, to submit completed forms. In Poland the number of citizens to rely on digital communication or digital services is on average twofold lower than in other EU member countries. The gap is especially significant compared with EU15 countries. In Poland every fifth citizen uses the Internet to interact with public offices, while in Denmark, for example, eight out of ten obtain government-related information visiting the government website. Moreover, in Poland there is a noticeable gap in usage of websites providing social security benefits (10 times lower) or to request personal documents (5 times less).

### 3.4. e-Services – Analysis of the Research Results

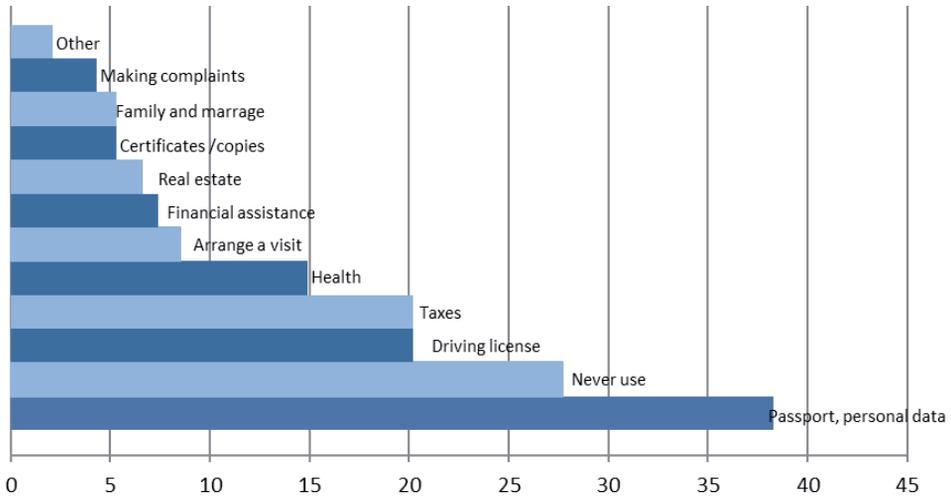
As it was discussed in this paper provision of e-services are the most important part of implementation of e-government. Hence, systematic research is needed to evaluate citizens' attitude towards e-services. Following this idea, group of questions of the survey, were directed to the evaluation of e-services. The survey showed that overall, only 36% used online services last year 34% out of which several times in a year and only 2% several times in a week.

It is worth mentioning, that local government of Wrocław offer a range of e-services, the website (Dolnośląski Urząd Wojewódzki (duw.pl) is quite user-friendly with the opportunity to choose language (Polish, English, German, French, Russian and Ukrainian) and to correspond it to the users with limited abilities.

The chart below shows which e-services are mostly used by respondents.

As it can be seen mostly used e-service relate to personal documents or data issues (37%). Second mostly used are driving licenses and taxes (21% each). Second biggest group of students never used e-services. Those could be users preferring offline form of public services.

**Chart 2.2. E-services available on Wroclaw self-government website and their usage by respondents**

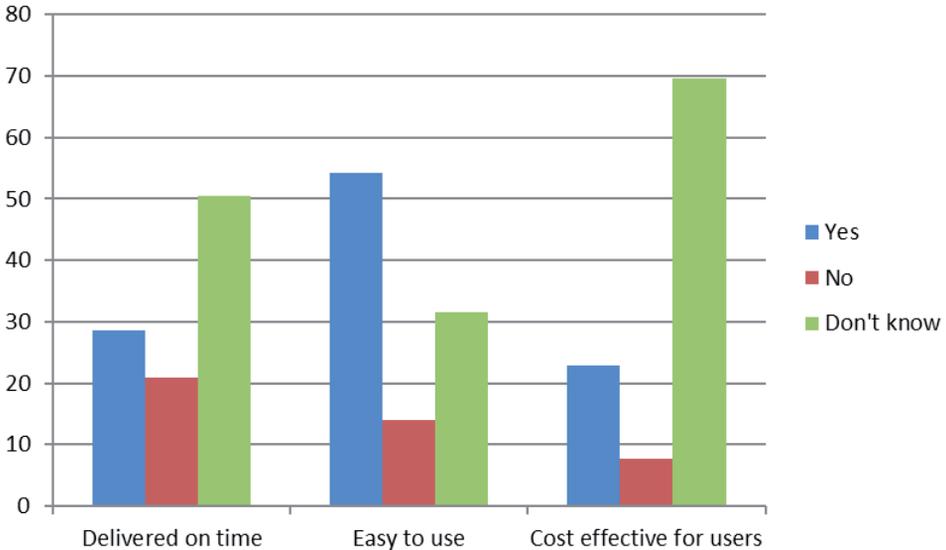


Source: own elaboration based on the survey „E-information and e-services in Wroclaw” conducted among students studying at the University of Wroclaw, Wroclaw Medical University, Wroclaw University of Economics and Business, between February-March 2020, N= 100

As it was discussed in chapter 1.1, the foremost benefits of e-government implementation for citizens are their cost effectiveness, on time delivery of government-related services and easiness. The survey was directed to evaluate e-services by the mentioned three criteria. Based on the data gathered through the online survey, it can be assumed that most of the respondents are not sure that the online services are delivered on time, or they are cost effective for them. What refers to easiness of e-services more than 50%, based on their own experience, assessed usage of e-services as ‘easy to use’. The attention should be paid to the fact that participants in the survey were student. They are so called ‘digital natives’ (Davies and Eynon 2018) and technologies are an integral part of their everyday life and there is no challenge to implement them effectively.

To the question, to what extent respondents are satisfied with the quality of delivered e-services more than 40% of respondents evaluated their satisfaction level as ‘somewhat satisfied’ and another 10% was ‘very satisfied’. To the same question 40% of respondents answered ‘don’t know’.

Finally, the largest group of respondents (46%) think that it is very important to have government related services online and the second largest group (29%) think that having access to e-services are important to some extent. This gives ground to assume that even if respondents do not use e-services often, most of them want to have access to e-services and the usage of e-services will increase in future.

**Chart 2.3. Evaluation of e-services by students of Wrocław universities**

Source: own elaboration based on the survey „E-information and e-services in Wrocław” conducted among students studying at the University of Wrocław, Wrocław Medical University, Wrocław University of Economics and Business, between February-March 2020, N= 100

To summarize, based on the respondents' answers it can be concluded, that most of the participants in survey prefer to use digital means to get information and services. However, while they are somehow satisfied with found information and they find e-services easy to use they are not sure that e-services are less time consuming or cost effective for them.

## Conclusion

As it was discussed in this paper the implementation e-government is considered as a pathway to deliver citizens-centric services, to enhance democratic values making the performance of the government more open, transparent and accountable. E-government tools can bring economic (cost-effectiveness for citizens and for the government) and non-economic (decrease of administrative burden, easier and faster delivery of government related information and services) benefits. Adoption of e-government and the process of making e-services usual and common for most of the population should be taken place gradually and in accordance with the requirements of the society. An

increase in the usage e-services by the citizens occurs at a slow pace in Poland. There are number of initiatives aimed at providing, expending and improving e-services in Poland, however at the period that the survey was run it seems that offline administrative procedure preferable option to get public services. It is also important that this survey conducted before Covid-19 and in the whole world the situation was completely different. Due to the pandemic, services which were not available online or it was impossible to deal with online now exist in virtual reality. So, for the future another survey should be conducted to compare the situations and evaluate to what extent the pandemic has made e-services closer to the people. By examining the case of Poland, which is illustrated in the second chapter, currently Polish government undertakes corresponding initiatives to develop the concept of information society. Throughout about 30 years of adoption e-government Poland could improve its ranking, currently having better performance of e-government than some other European countries. The initiatives are supported by organizational changes and relevant documents. While Poland lags behind many EU countries with its performance of e-government system, the government annually increases the number of available e-services. Unfortunately, at present there are no data on measuring effectiveness of e-services among citizens, which makes it difficult to assess the outcome of those initiatives. However, 74% of participants in the survey discussed in the chapter 1.3.4., answered that it is important to have e-services. It allows conclude that at least among youth user-friendly e-services are on demand.

When it comes to the hypothesis, from this research follows that the first hypothesis can be considered justified partly, as the vast majority found it ,somewhat satisfactory, so they need additional information or clarification related to required information.

For the second hypothesis initially were chosen three criteria: cost-effectiveness, easiness and on time delivery for the students in Wroclaw. According to the respondents answer the hypothesis is justified only with regards to easiness. Users at the time of the survey did not consider cost-effectiveness and on time delivery as an advantage of e-services.

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