

**ANALYSIS OF REASONS FOR CITIZENS LOW INTEREST
IN E-GOVERNMENT SERVICES IN POLAND:
E-FILING CASE STUDY**

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E-government aim to create cheaper and more effective administration is getting to be important element in the operational strategy of all countries. The authorities spent funds on implementation of e-government services and the effectiveness of these investments will be appreciated only when it is possible to reduce the expenditure on handling traditional procedures. E- filing tax systems are the most advanced e-government services, however not everywhere have been accepted in the equal form. This article will present the results of a study setting out the reasons for not submitting electronic tax declarations in Poland. The survey was conducted in the tax offices in April 2012. The objective of this article is to find the main reason which inhibit readiness to use this e-government service.

Keywords: e-services, e-government, e-filing, theory of attitudes

1. Introduction

Electronic or digital service is a service delivered via electronic channel (medium) or device consisting of sequence of activities which are executed - not necessarily all - by software applications and includes processing on digital resources. These taken actions then result in getting the additional value by the customer. There were bodies on the market benefited from the preparation of the relevant software and devices in order to implement and realize the projects connected with offering of the digital services. First digital services included

Internet access, email, or hosting. After that e-commerce and e-banking services, various kinds of Internet payments and the web promotion were offered. E-services turned up in our everyday routines. There are not only in the mentioned above financial and trade sector, but also in culture, transport, education, health care and in the public life. Digital services are offered by the public administration on state and local level. E-government as the integrated activities, aim to create cheaper and more effective administration, is getting to be important element in the operational strategy of all countries. E-government is a sign of a modern state. Its advancement demonstrates how seriously states consider the new methods of communication between the authorities at various levels and citizens or enterprises. ICT deployment has also economic sense and therefore the authorities should take extra care in order to make all e-government services more popular. Moreover there were some money spent on implementation of these services and the effectiveness of these investments will be seen only when it is possible to reduce the expenditure on handling traditional procedures. It happens with substantial increase in demand for digital services.

The market offers lots of e-services, but they are used to a various extend. The longer they have been available, the more customers they have gained. Surely it is the reason why the most popular are those related to electronic communication, e-commerce and e-banking, which have been delivered for at least several years. The Eurostat statistics show much lower interest and usage of the e-government services than usage of e-commerce or e-banking. In some countries it is even double lower [7].

Table 1. The use of e-services by individuals according to Eurostat

Country	On-line purchase/sales	E-government		
		In order to search for information	In order to download the official forms	In order to send completed forms
Lithuania 2010	7%	18%	16%	16%
Sweden 2011	53%	57%	36%	32%
Poland 2010	20%	18%	13%	6%
Austria 2010	32%	35%	21%	12%
UK 2010	60%	33%	20%	18%
France 2010	42%	30%	22%	17%
Finland 2010	41%	47%	36%	28%

E-government is another category of Internet services as e-commerce and e-banking already known, accepted and popular. However, the citizen's attitude is not the same towards them, what is for now a barrier difficult to overcome. The

social or mental barrier may appear to be much more difficult than the technical ones. Nowadays, when Internet access is provided in many countries for the majority of citizens, the aim is to improve the bandwidth connection, but the promotion and education of potential users is more important. Having Internet connection has undoubtedly caused gaining of competences, often called digital competences. But it does not explicitly give rise to using any services available online, including electronic government services, by all citizens. Josef Makolm [8] proposed three categories of digital services success implementation factors: technological, political and cultural. All these factors have to be in place concurrently in order for a country to experience high levels of e-take-up of government services. Technological category includes the preparation of the efficient system by its operator or author as well as gives possibilities and abilities to take advantage of them by their users. Political factors (i.e. procedural and legal) are standards and regulations to ensure the correct and legal operation of the system. Cultural then affect the behaviour of all the peoples involved in the process i.e. customers and employees of the company providing the service. They apply to social imagination, communication style and attitude toward new methods of activity. The acceptance of the service described as the qualities of the perspective users to use the certain system personally depends on these factors. When access to the new communication technologies is widespread in many countries, and when the most important regulations were prepared, this last factor is becoming the most important one.

2. Background

The success and acceptance of e-government initiatives, such as sending out electronic forms, petitions and complaints, voting online and settling the tax depend on the willingness of citizens to accept these services. Statistics show that Internet access to 20 basic public services, selected and monitored by the European Commission, reached in Europe in 2010, 82% [4]. Unfortunately Poland belonged to the countries in which the discrepancy between supply and demand on the electronic government service was the largest, especially in the sector of services for citizens [3].

The objective of this study is to find the main reason which inhibit readiness to use e-government service. But these services are used by such a small percentage of users that it would be extremely difficult to generalize or compare the results of their research and conclude anything on their basis (Table 2, Polish Central Statistical Office GUS data). For this reason, it was decided to examine one of the most popular e-government services in all the countries.

Table 2. Use of Internet in contacts with public administration in Poland

The percentage of people who use the administration pages to:	2008	2010	2011
Search for information	14,0%	25,0%	20,9%
Download the official forms	15,5%	18,7%	14,4%
Send filled forms	7,7%	9,8%	8,8%

Source: own preparation, data from [9]

According to the EU reports, the most activities related to e-government in the member states focus on delivering of governmental services, designed to make administration more efficient and effective. It was also noted that in the last decade, EU countries first set up services that generate income for government. Examples of such policy are electronic systems to file the tax returns, which are the most advanced e-service in all EU and OECD countries.

Hence it was considered that the attitude of citizens to public digital services can be examined on the example of electronic, annual income tax declaration sent by individuals and used regularly once a year. In most countries, many citizens just use this one, although it does not mean that it is absolutely a large percentage (Table 3).

Table 3. Use of electronic tax declarations according to OECD, data [10]

Country	Beginning	E-filing 2004 (%)	E-filing 2007 (%)	E-filing 2009 (%)
Belgium	2002	3	20	40
Bulgaria	2005	-	0,4	3
Czech Republic	2004	0,5	No data	1
Estonia	2000	59	85	92
Finland	2006	0	10	23
France	2001	4	20	27
Lithuania	2004	14	No data	71
Latvia	2008	-	-	10
Hungary	2003	3	31,5	30
Portugal	2000	24	64	80
Poland	2008	-	-	1,4
Slovenia	2004	-	4	77
Sweden	2002	15	45	55
UK	2000	17	33	73

In Poland, individuals can send electronic declarations from 2008. In the first year of implementing e-Deklaracje (Polish e-Taxation system), only holders of qualified digital signature could use it. The procedure also required the dispatch of the paper notice to the relevant head of Tax Office, informing about the intention of sending the electronic PIT form (Personal Income Tax). It was done by 419 people only. In 2009, when the most popular PIT-37 could be sent without digital signature verified by the qualified certificate and without written notice, tax authorities received more than 89 thousand declarations from taxpayers. From this year the forms may be signed with the electronic signature unverified by any certificate, but ensuring the authenticity of the settlement. This signature is based on the following set of information about the person who e-files a tax return: tax identification number NIP, name, surname, national identification number PESEL, date of birth, the amount of income referred in the settlement of tax return for previous year (or zero value if none of the settlements was filled). This possibility has been made available only just in April 2009, at the end of the settlement period. In 2010 five electronic forms were prepared to file without digital signature. Increased number of electronic PIT forms was meant to encourage taxpayers and over one million of declarations were expected.) It was reckoned that the lack of fairly expensive digital signatures was the main cause of not exploiting the existing possibility of electronic case handling. However, it turned out that this was not the only reason. Offices received only almost 320 thousand forms from 355 thousands of taxpayers. The Ministry of Finance's expectations came true in 2011: nearly 1.2 million taxpayers sent e-declarations. The system is still being improved and it is getting easier and more convenient to use: since 2011, an electronic correction of PIT without a digital signature can be submitted, and the spouses who file joint tax returns do not need to notify about it. Since 2012, identification data – i.e. NIP number does not have to be specified

Statistics show that after several years of operation of this service in Poland, still not a large percentage of the population decided to test it. In Poland in 2012, four years after implementing of the service, over 2 million taxpayers have sent e-declarations, what constitutes 8% of the population. Four years after introducing the service Estonia has achieved a better result, which accounted for 59%, Portugal 24%. However there are countries with slower adoption pace: e.g. in Bulgaria only 3% of taxpayer's population uses e-filing [10]. In Lithuania in 2006 - 2 years after services introducing, 46% of citizens used the service, and even 71% in 2009. One of the reasons for such rapid acceptance of the digital services in Lithuania and Estonia was to provide citizens with electronic ID cards, by which the taxpayers can authenticate themselves. Higher rates have been achieved in countries where forms were partly or entirely prepared by government tax authority [7, 10]. This approach was first applied in the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) as well as in Estonia and Lithuania, then in other countries

(Chile, Slovenia, South Africa, Spain and a bit later in Australia, Belgium, France, Portugal and the Netherlands. A lot of countries are going to introduce such a service, Poland is among them. Such a solution was planned to introduce in 2013, but in 2012 the deadline for projects like: e-Podatki and e-Deklaracje 2 was prolonged until March 2015.

In 2013, a month before the end of accepting the declarations, it was already known that the service was used by 10% of taxpayers and at the end they reached the result over 3,5 million e-declarations. The question, which should be answered, is: does little interest of the potential audience show that the service is not needed? Or does it indicate that it is not well prepared and requires much more work or better propagation?

In many countries, the research into the factors that affect the decision to take up the e-filing systems [2, 6, 11], and obstacles [5] are conducted. The results are not consistent, because systems in individual countries differ. In many countries, the tax offices fill out forms, not everywhere access to the e-file system is free, not everywhere strong authentication is required. Not all tax authorities have a policy of tax incentives or extending deadline for making tax return. These factors influence the behaviour of potential users and the extent of use.

3. Research model

Taxpayers who do not file annual tax returns over the Internet were the subjects of the undertaken studies. Citizens, who did not take this possibility in that particular year, make the tested population. Because one of the reasons for this matter may be the lack of computer skills and not using the Internet, it was decided to carry out paper questionnaires.

It is not possible to draw a representative sample of those taxpayers, who do not file of electronic declarations PIT, since there is no database of such taxpayers. Numerousness and structure of the examined population is usually known 1st May of each year. Therefore, it was decided to use non-probabilistic selection method based on the availability of those under examination [1]. However, it was attempted to retain certain features of probability selection: it was decided to select voivodeships and then large and small villages out of them (layered model), moreover every 10th taxpayer standing in the queue in the course of the examination was asked for participation.

Majority of published studies also used the non-probabilistic selection based on the availability of respondents. In many cases respondents were graduates of one field of study, one or two Universities, the participants of special courses or public event therefore, the results may be less representative [2, 6, 12].

Four voivodeships were drawn, and big and small towns within them. The research was conducted in 11 offices, which agreed: 8 in big cities (Gdynia,

Wrocław and Łódź) and 3 in small (Włocławek, Poddębice and Oleśnica). Survey was carried out in tax offices at the time of the tax returns submission, during the highest turnout i.e. in the last decade of April 2012. 360 people took part in questionnaire. 341 completed forms were taken into account in order to develop the results.

4. Analysis

Almost all surveyed taxpayers were aware of possibility of using electronic forms (320 people, 94%), and almost 50% knew somebody who benefited from this service (18% knew one person, 28% several people, 4% more than 10).

People who took part in the study are the other digital services' users. Most respondents use e-mail and e-banking services, and the least number of respondents use blogs. The details are shown in Table 4. Up to 62% of those surveyed (but 40% were not so sure) declared that next year would try to take advantage of electronic services to send their tax returns.

Tabela 4. The digital services usage

Digital service	The percentage of users
Email	82%
Social networking sites	59%
Blog	17%
Electronic auctions as a seller	26%
E-Commerce and e-auctions-as a buyer	64%
Social purchasing	21%
E-banking	71%
E-Government	20%

Respondents gave their own description of several dozens of causes because of which they have so far not tried to send electronic declarations. These are grouped in 24 categories in Table 5. Some mentioned up to 3 maximum, and 54 could not give any reason. Only 9 people did not choose any suggestion regarding the next question, in which some ready proposals were offered, amongst them: fear of the Internet medium, fear of using the Internet to communicate with the office, inability to authenticate, inability to confirm sending e-declarations, somebody's own bad experience or his friends or this described in media.

Table 5. Causes of non-using the e-Deklaracje, given spontaneously

Category of causes	Participation in the trial
Habit	10,30%
Technical problems	9,40%
The old method preferences	8,20%
At the opportunity	7,30%
Other reasons	6,50%
Lack of knowledge about details	5,90%
Someone else filled the PIT	5,30%
Lack of time to get to know it	4,10%
Software problems	4,10%
Need for clarify the problem	3,80%
Need for credentials	3,20%
Safety regulations	2,60%
Lack of digital skills	2,60%
The first tax-return	2,30%
Lack of interests in the service	2,10%
Unwillingness to get to know the service	2,10%
Lack of e-signature	2,10%
Fear of the Internet	1,80%
Inability to authenticate	1,50%
Traditionally faster	1,20%
Traditionally easier	0,90%
Due to additional charge to tax payment	0,90%
Problems of others with the system	0,60%
Due to tax overpayment	0,60%

In the study group can be assumed that they all have a passive attitude towards the service because they did not have benefited from it. A very small group admitted that they had a problem with installing the necessary program, so they intended to use the system, but there was not enough motivation or competence, or there was lack of support to complete it to the end. Quite a lot of people seemed to be aware of the benefits that the application of the e-declarations can bring however, habits, fear or laziness were stronger.

Almost 20% reported the preference of the traditional method as their reasons. Nearly 9% reported lack of eagerness, time, and interest in the service, therefore, not seeing enough of the service benefits, they do not want to make an effort and

try to find out something more about the electronic settlement. And more than 6% of respondents reported a lack of information on this topic.

Study group seldom heard about the problems of other taxpayers, which could discourage them, and almost half of them knew at least one person, who filed electronic PIT. This matter can be looked at less optimistically: since the study group did not hear about problems, so their acquaintances probably have not had bad experiences, although that was still not a stimulus to try. Quite a lot of people used the services of accountancy offices, which have prepared paper forms, that is, why in Poland these kinds of institutions do not encourage to change the old way of the PIT preparation.

The respondents did not report directly lack of available reference materials. It is known that one can find them, but maybe if they were better advertised, the level of knowledge of the service would be higher and the irrelevant causes would not be given.

In order to further analysis division was made regarding the spontaneously given respond into 4 categories: technical, procedural, cultural and cognitive - related to lack of knowledge. Technical factors include problems connected with a lack of technical opportunity for using the service e.g. due to the lack of Internet connection, the computer or application. Sometimes problems can be subjectively technical, e.g. when someone did not use the service because of not having the program that could be easily downloaded from the e-Declarations webpage, what objectively is the lack of knowledge. Procedural factors are regulations which unable to use the system. Here also, some of the reasons are subjectively procedural, e.g. filing of the first in one's life income-tax return. Cultural causes result from public imagination, the communication style and the citizens' attitude towards the new method of operation. Cognitive factors are a consequence of the lack of knowledge and competence how to use the computer system.

Values in the table do not add up to 100% because other causes were omitted, apart from that some people gave a couple of reasons.

Only lack of printer and a failure of Internet connection were considered as subjectively technical problems. However, it can be assumed, that most of the reasons given was easy to defeat, e.g. in the case of having old or too slow computer surely a friend's computer could be used. Moreover to send the declaration does not need special parameters.

From the list of issues connected with the software, inability to cope with a Web browser was recognized as subjective, as it is the basic tool, particularly in the context of the popularity of WWW services. Having trouble installing a new version of the plug-in or the program actually could cause an obstacle.

Table 6. Aggregation of reasons for not benefiting from the e-Declaration system

Type	Subjectively		Objectively	
Cultural	Fear of the Internet Habit Lack of interests in the service The old method preferences Traditionally faster Traditionally easier Unwillingness to get to know it Lack of time to get to know it Problems of others with it At the opportunity	41%	Fear of the Internet Habit Lack of interests in the service The old method preferences Traditionally easier Unwillingness to get to know it Lack of time to get to know it Problems of others with it At the opportunity	40%
Procedural	Need of credentials Due to tax overpayment Due to tax payments Someone else filled the PIT Need to clarify the problem The first tax-return Lack of information needed to authenticate Lack of digital signature	21%	Someone else filled the PIT Need to clarify the problem	10%
Lack of knowledge	Lack of digital skills Lack of knowledge about details	9%	Lack of digital skills Lack of knowledge about details Due to tax overpayment Due to tax payments Need of credentials Traditionally faster Lack of information needed to authenticate Lack of digital signature Lack of ability to solve simple technical problems	22%
Technical	Security Technical problems Software problems	17%	Security Technical problems Software problems	16%

Each of the listed reasons in table 6 can be assigned to one of the 3 components of attitudes (emotional, cognitive, and behavioural) [12] together with an indication of whether there is a chance for a quick persuasion to change the

attitude, what is an attempt to use the system. Tested taxpayers can be divided into two groups: very difficult to persuade whose resistance demonstrates mainly through the emotional component. And those, whom should be fairly easy to explain what their e.g. false belief consists in, regarding their inability of submitting an electronic form PIT.

The emotional factor demonstrates a lack of interests and concerns. The first group should include also those who could not give a reason of not using the system. Presumably, that will be extremely difficult to influence on the attitude change in this case. What can help in that matter is the advertisement aimed at the emotions where famous and popular people will appear, or bringing up the subject of the electronic tax settlement in popular TV shows and TV series.

It will be much easier to apply the persuasion techniques in relation to those who had cognitive defect occurred, i.e. they subjectively believe that there are some e.g. technical or formal obstacles but if it is explained that this is not the case – it can be assumed, that in the near future they attempt to use the system.

We need to be aware of the fact, that those who are the most resistant to a new way of activity, can change their attitude only through the influence on behavioural component, like implementing of mandatory sending e-form. Then everything what is possible should be done to show that the system is really worth using, even though when the duty is abolished. Not so many countries have decided on mandatory use of e-system of taxes by their citizens. Potential users are persuaded by media campaigns, policy incentives (tax relieves, faster tax refunds, longer periods for collection of the e-declarations, decreased demand for income data) and direct support (free software, online help).

Services for the mass user should be very well prepared, because many people do not read the instructions and rely on the context-sensitive help. Observing the Polish operation of the e-Deklaracje have noted numerous weaknesses, happily repaired - sometimes in the same year. In 2011, many taxpayers could have been deterred when it turned out that the full procedure was not completed, because they recognized reference number as the official acknowledgement of receipt (UPO). The taxpayers whose forms were wrong and rejected by the system (they did not notice this fact) as the consequence did not submit them. Those taxpayers have been finding out about it only after receiving information about failure of fulfil their obligations.

In this case taxpayers were partly to blame for, but the system could actually suggest that they should wait for the official acknowledgement of receipt UPO – what was fixed in 2012. In 2013 the authors of the system did not take into consideration that the new versions of Web browsers did not allow to open the interactive forms. It could discourage those who were convinced that they had had a bad image of the system, and we should not allow these to happen.

5. Conclusions

Conducted questionnaire study showed that people performing the obligation to file tax return in paper form, have digital experience and, therefore, have access to the Internet, and by using the electronic services, they acquire practice in the field of the new ICT application in many areas. Despite this, those respondents and unfortunately still majority of Polish taxpayers choose the traditional method.

Distinguishing between obtained responses to cultural, technical, cognitive and procedural factors, it turned out that 40% of spontaneously given reasons belong to the cultural, which is associated with tradition, fear of the Internet, lack of being inquisitive enough. Procedural reasons are in the second place in the perception of surveyed group. In third place are technical related to the software or equipment problems, and in the last one cognitive. However, the analysis of the responses obtained, leads to the conclusion that objectively in second place there are reasons related to lack of knowledge about procedure of sending the electronic tax return, in the third are technical problems, and only in the last procedural.

Therefore, citizens are aware of existing service, they have digital experience, there is no obstacles to the Internet access, applications and the methods of authentication, but despite having all this, and they prefer to use the service in the traditional way. What could be worrying is, that there was a lack of eagerness to find more accurate information, so taxpayers do not see any benefits in the service and their attitude to a new proposal is passive.

The task for government should be a better understanding of the potential group of users and popularizing how to use the service. Also stronger emphasis on the benefits resulting from usage of the e-Deklaracje system would be advantageous. Practical examples and giving the argument list will dispel concerns learnt in the study. This will make potential users be aware of the fact that the new way of action is worth testing, what means changing the attitude.

A group of taxpayers who have not yet benefited from the system is not homogeneous, two sectors can be distinguished in it: more and less resistant. In most cases, the reason for non-acceptance is a defect in the cognitive or emotional area - first one is easier to overcome through the application of persuasive methods. However, administration may also convince how to use the new services by making it easier for the entire procedure, do not let users discourage themselves e.g. just at the beginning while facing the problems with installing necessary software or with opening the files. Therefore, it is essential to know what the structure of the potential users group is and address the appropriate messages and actions for each of its sectors.

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