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THE SALIENT FEATURES AND STEPS OF THE IMPLEMENTATION OF E-GOVERNMENT IN UKRAINE**Shevtsova S., PhD in Tech.Sc.
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The article concerns grounding of the implementation of e-government in Ukraine. Despite the fact that we live in the era of high technology, in Ukraine the bureaucratic fuss in the governance of the country have been still used. Ukrainians still have to stand in queues, to get help, to register a business, to obtain a construction permit, to pay for utilities, etc. All these bureaucratic procedures are forcing officials to abuse power and to provoke corruption at all levels. The main reason of all this problems is that Ukrainian bureaucratic machine is not institute of providing services, but punitive agency which target is to extort money from business and citizens. Therefore, to make the economic breakthrough and become the “European miracle” of doing business and ease of service, the introduction of e-government is now more relevant than ever. The purpose of the article is on the basis of analysis of the experience of introduction of e-government in Eastern European and Baltic countries to determine the main directions of this system implementation in Ukraine as well as its influence on the further development of our economy. The article provides detailed written steps and options for the implementation of e-government in Ukraine using the experience of other post-Soviet countries. The options of cooperation of private business, graduates of universities and officials in creating integrated electronic service have also been offered.

Keywords: e-government, public services, officials, private business, transparent procurement, development of electronic services.

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ГОЛОВНІ ОСОБЛИВОСТІ ТА ЕТАПИ ІМПЛЕМЕНТАЦІЇ ЕЛЕКТРОННОГО УРЯДУ В УКРАЇНІ**Шевцова С.А., к.т.н,
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Стаття присвячена обґрунтуванню впровадження електронного уряду в Україні. Незважаючи на те, що ми живемо в епоху високих технологій, в Україні досі використовується бюрократичний безлад в управлінні країною. Українцям, як і раніше доведеться стояти в чергах, щоб отримати довідку, зареєструвати бізнес, отримати дозвіл на будівництво, заплатити за комунальні послуги. Всі ці бюрократичні процедури змушують чиновників зловживати владою і провокувати корупцію на всіх щаблях влади. Головна причина цієї проблеми

полягає в тому, що наша бюрократична машина не є інститутом з надання послуг мешканцям, а є каральним органом, мета якого вимагати гроші в бізнесу і громадян. Тому, щоб зробити економічний ривок і стати "Європейським дивом" за легкістю ведення бізнесу і простотою надання державних послуг, впровадження електронного уряду актуально як ніколи. Мета статті полягає в тому, щоб аналізуючи досвід впровадження "електронного уряду" в Східно-європейських і Прибалтійських країнах, визначити основну модель та напрямки впровадження цієї системи в Україні та її вплив на подальший розвиток нашої економіки. У статті детально написані кроки і варіанти реалізації електронного уряду в Україні з використанням досвіду інших пострадянських країн. Також запропоновані варіанти співпраці приватного бізнесу, випускників вищих навчальних закладів і чиновників в створенні інтегрованих електронних послуг.

Ключові слова: електронний уряд, державні послуги, можновладці, приватний бізнес, прозорі державні закупівлі, розвиток електронних сервісів.

The actuality of the issue. Today we are living in an era of advanced technology. If the country wants to be successful and keep up with the times – it is the government who is expected to pay greater attention to the adoption of electronics and cloud technologies in its management. In the 21st century the success of a business often depends on how much time and money should be spent on business registration, registration of authorization documents, and payment of taxes. In countries where officials are using e-government and cloud technologies, all of the above procedures and services usually occupy a minimum amount of time. Moreover, citizens do not have contact with officials and in this way the level of corruption and administrative pressure is still low.

Unfortunately, the e-government and the e-services are poorly developed in Ukraine, which contributes to corruption and abuse of power. Ukrainians sometimes have to wait for obtaining a permit or important documents for months, while in other countries these services or documents can be issued to get throughout the day. As a result, investors being aware of the high level of corruption and bureaucracy in Ukraine do not seem to be eager to invest in the national economy, thus making the country an outsider on the ease of doing business and the development of e-government. This, consequently may adversely affect the image of the country as a whole. Therefore, to make the economic breakthrough of doing business and ease of service, the introduction of e-government is more relevant than ever.

The purpose of the article: on the basis of analysis of the experience of adoption of e-government in Eastern European and Baltic countries to determine the main directions of implementation of this system in Ukraine and its influence on the further development of our economy.

Analysis of publications. Theoretical groundings and experience of development of e-government were broadly studied by Bozhena Sheremeta, Malwina Popiolek, Nikita Polataiko [1], [2]. The main factors affecting the interaction of government and business interact in a web environment were the subject of scientific research of Rhoda C. Joseph [3]. The experience of implementation of e-government in the post-Soviet countries was investigated by Georgian official Paata Sirbiladze [4]. Still there is a rising actuality of systematization and searching of all necessary tools and experience which will help to implement such system in Ukraine.

The main results of research. E-government (also known as e-gov, Internet government, digital government) is the digital interactions between a citizen and their government (C2G), between governments and government agencies (G2G), between government and citizens (G2C), between government and employees (G2E), and between government and businesses/commerce (G2B). The ultimate goal of the e-government is to be able to offer an increased portfolio of public services to citizens in an efficient and cost effective manner [5]. E-government provides for government transparency. Government transparency is important because it allows the public to be informed about what the government is working on as well as the policies they are trying to implement. Simple tasks may be easier to perform through electronic government access. Many changes, such as marital status or address changes can be a long process and take a lot of paper work for citizens. E-government allows these tasks to be performed efficiently with more convenience to individuals. It is also an easy way for the public to be more involved in political campaigns. The use of digital interaction between citizens and their government increases the responsibility of voters and contributes to more active participation of citizens in the election. It is convenient and cost-effective for businesses, and the public benefits by getting easy access to the most current information available without having to spend time, energy and money to get it.

For Ukrainian business the introduction of electronic government simplifies online registration of companies, trademarks, acquisition of

patents, licenses, etc. But directly to the state apparatus – savings on its content (for example, in Britain thanks to the use of e-government saves about \$3 billion annually), increased levels of trust and transparency, optimization of government procurement, aggregation, and interaction of the individual agencies to provide integrated public services [6].

The implementation of e-government in Ukraine has a lot of difficulties and obstacles. First of all, our government has no political will to implement everything at once. There are some problems with the development of electronic services and clouds technology due to the conflicts with finance groups who have a close business links with government. It is much better for business people to make a business without transparent tenders and earn on kickbacks. The second reason is that there is no common strategy and platform for building e-government. Nowadays, in Ukraine there are two candidates who in the future may become the Foundation for the creation of a single center providing services and information. They are Prozorro and iGov. Prozorro is a system created through the initiative of NGOs, commercial platforms, public authorities, and businesses. Their goal is transparent and effective public spending and corruption preventing through public monitoring and a wider range of suppliers [7]. iGov is another example of future platform for development e-services in Ukraine. The main target of this electronic application is to unify all public services on one website. But in spite of all the difficulties and the struggle for the implementation of e-government, we have made first steps for developing transparent and efficient e-government. On 15 September 2015 Verkhovna Rada adopted the bill on the transfer of all public procurement in electronic form. The platform for all state procurement must be e-platform Prozorro.

Today for Ukraine there are a lot of successful examples of implementation of e-government. One of the most significant e-development was in Estonia after the collapse of USSR. The level of technological advancement in Estonia during the 1989-2000 could be defined as low-grade. Estonia's IT environment was counted as "typical of the region". Estonia lacked "technological conveniences" that were taken for granted in Western countries, eg the telephone system functioned poorly. Therefore, Estonia's case is interesting because, in comparison with other countries, technological advancement happened later than in the Western world. While others were 10 or even 20 years ahead in the development of e-government, Estonia was still

trying to find its path. It is interesting to witness a country that started its technological processes so late but has reached the same level of development than other (wealthier) states. Estonia could be considered fortunate to have started building its information and communication technologies in an era when the internet was just in developing stages and thus could take advantage of its newly-found functionality in implementing modern technologies. Similarly to other contemporaries, Estonia had political, governmental, social and economic systems that were all Soviet, that needed to be restructured after Estonia regained its independence on 20 August 1991. Numerous necessary reforms derived from pragmatic rather than ideological reasons. Some of the challenges were related to implementing liberal economic policies, transforming the political ideology, reduce the influence of government on business, free access to all necessary public information so that it would be acceptable to the newly re-structured modern society, integration to the Western community. Some relevant details and events in the evolution of Estonia's electronic government were brought out in first years of independence. In 1993, a strategy paper was prepared by the IT community for establishing foundations and principles for the management of modern, well-functioning state information systems. Subsequently, a specialized IT department was established in the central government and additional finances were allocated for all IT expenditures at the various government agencies. Furthermore, the development of e-government and information and communication technologies in general was moduled by a number of laws. The first was "the law of private data protection" in 1996; second, "the law of databases in 1997; third, "the foundations of informatics" in 1996; fourth, "the law of identification documents and digital signature" in 2000; and fifth, "the foundations of information politics" in 1998 [8]. Government IT procurement was subsequently unified and these efforts concluded with the launch of a government wide backbone network EEBone ("Peatee" – throughway in Estonian) in 1998. The network joined governmental units with secure access to the internet and intranet. Additionally, the X-Road network was implemented in 2001 that, in turn, enabled a diverse range of government databases to communicate with one another (Figure 1). It allowed government officials as well as individuals to access information in these databases.

The banking sector benefitted from the liberal economic regime and sound financial policies. That, in turn, became an influential IT innovator by introducing online banking in 1996. The system was simple, of high quality and secure, and that attracted the majority of internet users to become its customers. Subsequently, these qualities lead many state agencies to use the identification verification system in online banking. That enabled government services to work online. Since 2000, Estonians have had the opportunity to file their taxes online using identity verification in the online banking system. A larger number of services became accessible through online banking systems, eg buying a bus pass online, paying for utilities and phone service, and participating in local and general elections. In addition, the identification system allows its users to identify themselves through private sector partners' websites by using the same system based on online banking.

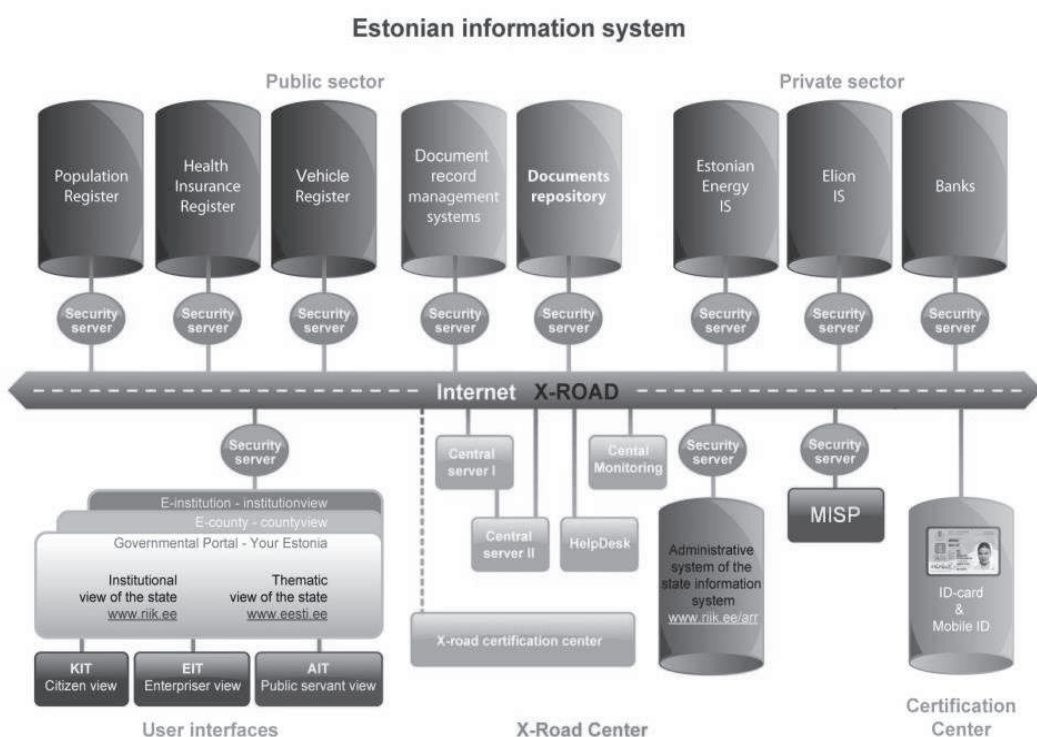


Figure 1. The structure of Estonian e-government

Source: [8]

The role of governments is constantly changing and the functions of a government are congregating as increasingly more services and transactions are expected to be delivered in a more efficient way. Electronic government, a concept that initially emerged in the public administration of industrial

countries, was developed as a response to these expectations [9]. Furthermore, e-government has become increasingly relevant in delivering efficient services and value in public administration, central government and restructured state information systems. ICTs are helping to achieve these emerging goals by providing new and innovative solutions and by supporting governments in integrating and enriching the ways communication flows both locally, and globally.

Estonia's experience has shown an example of a novel country that has implemented modern e-government practices in a short time period with limited resources. It is a case of a country that has seemingly built its information infrastructures from scratch, although having access to know-how and the possibility to import computer technologies. The circumstances and technological advancement that Estonia had 20 years ago provided unique possibilities and solutions that cannot be copied in the current, technologically different time. However, it can be assumed that the importance of e-government systems continues to increase, and thus, this case provides valuable lessons on how starting from scratch and while having limited resources one can still achieve successful results.

Another more interesting example of development e-government is Poland. Before the implementation of e-government in Poland started, it had been very important to extensively computerize the offices. It was necessary to develop ICT infrastructure. It is difficult to talk about Polish e-government in isolation from the European Union context. The development of electronic solutions implemented by the Polish government is closely associated with the integration processes [10]. Before access to the EU, Poland had to fulfill a number of varied conditions. Some of them were related to implementation of e-government solutions.

Firstly, the Public Information Bulletin (BIP) was introduced. It is a united system of web pages, designed to make public information available for the general public. The Public Information Bulletin (BIP) was created for public access to the public information in digital form. The Bulletin consists of web sites on which public authorities and other entities performing public functions provide public information required by Polish law.

In 2002, the concept of Wrota Polski (Polish Gateway) was presented. It was created to make an integrated information system, enabling provision of public services via the Internet, and in a broader sense, to open the country

for new techniques and cooperation with other countries in this area. The most popular e-services in Poland, according to e-offices, are connected with economic activity of citizens, like company registration (Figure 2).

Generally, the interest in e-services is relatively small. This may be associated with soft barriers (connected with citizens) of e-government development, lack of knowledge about the opportunities offered by e-government, low level of e-skills or lack of confidence in e-offices. All of this can create low interest in the new forms of administration. In the E-Government Survey 2012, published in 2012, Poland took the 47th place in the ranking of the world's e-government development index. The study has assessed 190 countries all over the world. Poland ranked below such countries as Kazakhstan, Slovenia, Croatia or Hungary. It is not bad score for Poland among another post-Soviet countries. But, the citizens of Poland are not satisfied with this result of developing e-government in their country. As we can see from the reports of E-government Survey other countries in Central Europe are developing better in this regard.

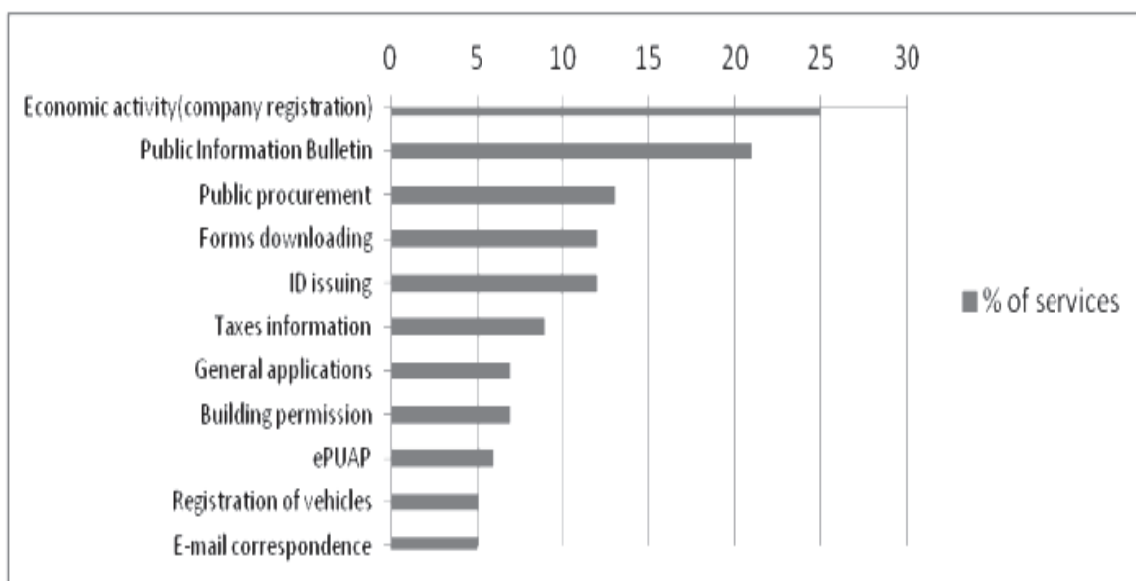


Figure 2. The most popular e-services in Poland in 2011

Source: [11]

To sum everything up, we can see that due to the different difficulties with the development of e-government, Poland have really stable, transparent and developed e-services. Poland and Ukraine had the similar economy and problems in the end of 20th century. The experience of Poland in implementation of e-government really can help our country to break the back of corruption and make the state services from punishment machine to convenience and soft application for Ukrainians.

Conclusion. Today, after the Revolution in 2013-2014 Ukraine has a unique chance to change country from crony-capitalism state to liberal democracy state with developed institutes and strong middle class. One of the most important things which the Ukrainians must do in order to be wealthy nation is to reduce the influence of government on their economic, social life and to build transparent and independent machine which will provide services and useful information. So, there are some steps which must make our government and Ukrainians in order to create really transparency e-government.

First of all, a unified concept of e-gov should be developed and approved [12]. Also the creators have to describe a particular path of development, to take into account the different experiences of other countries (in our case, Poland, Estonia), norms, directives and regulations of European Union and with the introduction of digital technology at the state level. Secondly, to create a single authority with extended powers, which will be able to coordinate the process of implementation of this concept and achieve real results. Furthermore, the financial side of implementation e-government must be solved at the beginning of creating such important system. Employees who will be responsible for the development of e-government, procurement of high quality equipment, servers and maintenance of the entire system should receive higher salaries. This will ensure that the government will not develop cyber-corruption, cyber-crime and would not undermine the national security of the country. In our case, money for creating such system will be given by European Union and United States of America. Finally, one of the most important aspects: it is the attraction of highly qualified programmers, who will create a highly secure government network. In different West countries the best and most talented programmers are taken on the public services after their graduation. Motivation in the form of large salaries and career promotion really does work. In many countries these factors have built a transparent, efficient and secure e-government system.

To sum everything up, we can say that the implementation of e-government now is more relevant than ever. Many of us would agree that it is not a panacea for all problems in the country. But in our country the electrification of all public services play a great role due to the historical development. Most of the troubles in Ukraine are due to the not efficient and incompetent management of our government. The government's role in the life of business and population is exaggerated. E-government aims to reduce the role

of officials, the level of corruption in the lives of citizens and businesses. Implementation will save the time and money of all of us. In this situation will benefit both the state and ordinary citizens. Business will come out of the shadows and begin to pay taxes and the government can use tax revenues to increase the level in the life and development of the state as a whole.

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