

МИРОВАЯ ЭКОНОМИКА
WORLD ECONOMY

УДК: 338.2

DOI: 10.18413/2409-1634-2019-5-4-0-2

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ВЫЗОВЫ ВНЕДРЕНИЯ ЭЛЕКТРОННОГО
ПРАВИТЕЛЬСТВА В РЕСПУБЛИКЕ АРМЕНИЯ

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Аннотация

В статье представлены основные вызовы внедрения электронного правительства в Республике Армения. Цифровая экономика быстро развивается по всему миру и является одним из наиболее важных драйверов инноваций, конкуренции и роста. Процесс использования информационно-коммуникационных технологий при оказании государственных услуг известен как «электронное правительство». Электронное правительство может существенно увеличить эффективность, инклюзивность, прозрачность и ответственность работы государственных органов власти. Вопрос успешного внедрения электронного правительства стоит на повестке дня в государственном аппарате Республики Армения. Барьеры, ограничивающие существенное онлайн вовлечение граждан в разработку политики не только технологические, но и затрагивают культурные, организационные и конституциональные аспекты.

Ключевые слова: электронное правительство; информационно-коммуникационные технологии; цифровая экономика; государственное управление.

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CHALLENGES OF E-GOVERNMENT INTRODUCTION
IN THE REPUBLIC OF ARMENIA

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Abstract

In this article, the main challenges of e-government introduction in the Republic of Armenia are presented. Digital economy is developing rapidly worldwide and it is one of most important drivers of innovation, competitiveness and growth. The process of introducing information and communication technologies into public services is known as “e-government”. E-government can significantly increase the effectiveness, inclusiveness, transparency and accountability of the state institutions’ work.

The introduction of successful e-government is in the agenda of the RA's government. The barriers to greater online citizen engagement in policy-making are not only technological but also cultural, organizational and constitutional.

Key words: e-government; information and communication technologies; digital economy; public administration.

Introduction

The Republic of Armenia is a small developing country. Usually, governments of developing countries play an important role in the economic development or growth process. Hence, Armenia's social-economic objectives have to be accompanied with effective public administration. Information and communication technologies (ICT) play a huge role in increasing the effectiveness, inclusiveness, transparency and accountability of governments. ICT sector is one of the main strategic development priorities of the RA's government [RA Government Decree №442 "Armenia Development Strategy for 2014-2025"] Besides, it is worth to mention that this year the World Congress on Information Technologies (WCIT 2019) took place in Yerevan on October 6-9 which proves the willingness and readiness of Armenia to succeed in that sector [World Congress on Information Technology]. ICT is very important for poverty reduction process. ICT can provide new sources of income and employment for the poor, improve delivery of health and education services and increase the competitiveness of the economy. The process of introducing ICT into public sectors is known as "Digital Government" or "E-government" which allows governments to provide access and inclusion for all.

Discussion

In the literature, there are a lot of definitions what e-government or e-governance is. Analyzing and grouping the literature, we can state that e-government and e-governance seem synonyms to each other but they are totally different. E-government is actually a narrower discipline, dealing with the development of online services to the citizens serving as an institutional approach to jurisdictional political operations. The aim of e-government

is to build people-centered and inclusive information society, putting the potential of ICT at the service of development and addressing new challenges of the information society. E-governance is a wider discipline that defines and assesses what kind of impacts technologies have on the practice and administration of governments and the relationships between public servants and the wider society serving as a procedural approach to co-operative administrative relations. The aim of e-governance is encouraging citizens' participation in the decision-making process and making government more accountable, transparent and effective. For example, e-governance can be understood as a modern, more effective way of public management that uses information and communication tools and is based on a common access to the Internet. By using e-services, the administration of all levels (local, regional, national) is able to deal with citizens' problems in a faster, cheaper, and more comfortable manner [Sztóp-Rutkowska, K., Zagulski, S., 2019]. Well developed or managed e-government will provide interactive and transactional public services for citizens and business where those services are almost totally delivered remotely. This will improve the efficiency in public sector operations and economic development with lower cost, and greater transparency. It is known that the use of e-government services by businesses is higher than the uptake for individuals. This might reflect the fact that in many countries the use of the digital channel is mandatory for businesses. Taking into account the above mentioned, we can state that e-government can strengthen Armenian economy's competitiveness by reducing corruption and arbitrary decision-making in the investment field and by providing the government tools to better manage business procedures.

According to the UNDP, nowadays, the digital economy is becoming an ever more important part of the global economy. It offers many new opportunities for inclusive and sustainable development. It also comes with serious policy challenges – starting with the need to bridge the digital gap [Decree of the Government, 2019]. In 2016, the global digital economy was worth 11.5 USD trillion which was almost 15.5 percent of world's GDP. It is expected to reach 25% of the world's GDP in less than a decade [The World Bank, 2018]. Today, of the world's 10 largest companies by market capitalization, five are technology companies [Global Finance, 2019]. As we can see, digital economy is developing rapidly worldwide and it is one of most important drivers of innovation, competitiveness and growth, and it possesses a huge potential for entrepreneurs. How businesses adopt digital technologies will be a key determinant of their future growth.

There are also critiques concerning e-governance. In his paper Heeks (2001), based on case studies, mentions that e-governance is a current, not just future, reality for developing countries but most e-governance initiatives fail. In order to escape the future failure of e-governance initiatives countries have to solve two problems. First, the strategic challenge of e-readiness. Heeks raises six key questions which will help developing countries' governments assess how strategically prepared they are for e-governance. Those questions are: 1. Is the data systems infrastructure ready? 2. Is the legal infrastructure ready? 3. Is the institutional infrastructure ready? 4. Is the human infrastructure ready? 5. Is the technological infrastructure ready? 6. Is the leadership and strategic thinking ready? Second, the tactical challenge of closing design – reality gaps: adopting best practice in e-governance projects in order to avoid failure and to achieve success [Heeks, R. 2001]. The other critique of e-governance comes from Wilhelm (2000) who thinks that social and political problems cannot easily be solved by merely introducing technology into the process. The problem is in understanding of the "digital divide". This term refers to the gaps in access to ICT. So, the "digital divide" was

taken to mean the divide existing between those who had access to ICTs and those who did not have access to ICTs. He refutes the notion that the information underclass can be defined in terms of access. According to him, what remains missing from these definitions is the broader context of a person's information seeking behaviour, media use patterns, and cultural and environmental contexts [OECD Promise and Problems of E-Democracy, 2003].

In the beginning of 2000's, the RA's Government began carrying out its first initiatives of e-governance within the state budget and with financial assistance of international organizations such as the EU, the UN and the World Bank. The RA's Government has adopted decision N1093-N on 31.08.2015 which sets certain security, interoperability and technical requirements for electronic systems used for the creation of the state information system, and for the provision of electronic services by state and local self-government bodies and for their activities; the decision also regulates the relations regarding the technical requirements of access to those systems for individuals and legal entities [Armenian Legal Information System (ARLIS), 2019]. The coordinator of e-government projects in the RA is EKENG CJSC. The company was founded by the Government of the RA. The shares of the company are owned by the RA, and they are managed by the Staff of the Government of the RA [EKENG, available at, 2019]. EKENG also serves as an operator of Armenia's state component of the common infrastructure for documenting information in electronic form, created in the framework of Armenia's accession to the Single Economic Space and the Eurasian Economic Union. Later the RA's Government adopted decision №192-N on February 16, 2017 which regulates the interconnection of databases and the electronic transfer of personal data, stored and processed by state and local self-government bodies and other delegated entities, as well as between state and local self-government bodies and to the RA's resident legal entities and investment funds [Government Decree N., 2019]. In December 2017, the Government established a responsible body for

digital service delivery reforms, the Digital Armenia Foundation (DAF) which was also strategic coordinator of Electronic Governance Strategy. [9] However, by the end of 2018, DAF was closed [Decree of the Government No. 1176, 2019] DAF was the other central player in digital government; it has not yet been decided who will take over the responsibility for managing the general service delivery policy. The implementation of the Electronic Governance Strategy has been left without an operational level coordinator, given the ongoing liquidation of the DAF, which had been responsible for it. While the Government Programme 2017-2022 put a high priority on the modernization of the public administration, the newly adopted Government Programme 2018 focuses on short-term objectives only, with a view to preparing snap parliamentary elections. The Government Programme 2017-2022 envisaged the preparation of the Digital Transformation Agenda of Armenia (DTAA), the new digital government strategy, but although the draft has been completed, the Government has not adopted it yet [Baseline Measurement Report, 2019].

In Armenia, the e-government tools are developing in different government sectors. Now, there are almost 21 electronic government tools and databases of the RA's state agencies which are brought together in one governmental website. [Electronic Government of the Republic of Armenia, 2019]. These electronic government tools make public services more accessible, and ensure an easy and transparent connection between citizens and the state institutions. The EU is the main supporter of e-government in Armenia. In 2008-2018, the EU provided close to €25m for the E-government reforms in Armenia. With the support of the EU more than ten e-government platforms have been established in Armenia, including the electronic document management system Mulberry, the electronic system of the

State Register for Legal Entities, and a Unified website for publications of draft legal acts. Currently, two more systems are being developed: the Interoperability platform and the Single Electronic Window [More than Ten E-governance Platforms Introduced, 2019]. On 15 May 2019, the EU launched a new programme to support the digital economy and society in Armenia. Called EU4Digital, the programme also covers other countries in the Eastern Partnership and it has a total budget of €12 million. According to the EU, the programme will aim to establish a governmental interoperability platform, enabling a simplified and standardized secure connectivity between all public administration organizations in Armenia, and also introduce a one-stop-shop solution for the country's border crossing points [New Project Supporting Digital Economy and Society, 2019]. according to expectations, the result of the program will be online services at better prices and with greater choice, and it will help in attracting investments, boosting trade and employment, as well as strengthening cooperation with the EU Member States and within the Eastern Partnership.

Since 2001, the United Nations Department of Economic and Social Affairs (UNDESA) has published The United Nations E-Government Survey. The Survey is the only global report that assesses the e-government development status of all Member States of the UN. E-government progress of development captures via the E-Government Development Index (EGDI). The EGDI, which assesses e-government development at the national level, is a composite index based on the weighted average of three normalized indices. One-third is derived from a Telecommunications Infrastructure Index (TII), one-third from a Human Capital Index (HCI) and one-third from the Online Service Index (OSI) [United Nations E-government Survey 2018].

Table
Top 10 Countries in the introduction of E-government: Landlocked Developing Countries
[United Nations E-government Survey 2018]

Таблица
Страны-лидеры по внедрению электронного правительства: развивающиеся
не имеющие выхода к морю страны [United Nations E-government Survey 2018]

Country	Region	EGDI	EGDI Level	TII	HCI	OSI	2018 Rank
Kazakhstan	Asia	0.7597	Very High	0.5723	0.8388	0.8681	39
Moldova	Europe	0.6590	High	0.4787	0.7274	0.7708	69
Azerbaijan	Asia	0.6574	High	0.5062	0.7369	0.7292	70
FYR of Macedonia	Europe	0.6312	High	0.4859	0.6924	0.7153	79
Uzbekistan	Asia	0.6207	High	0.3307	0.7396	0.7917	81
Armenia	Asia	0.5944	High	0.4660	0.7547	0.5625	87
Kyrgyzstan	Asia	0.5835	High	0.3418	0.7628	0.6458	91
Mongolia	Asia	0.5824	High	0.3602	0.7899	0.5972	92
Bolivia	Americas	0.5307	High	0.3148	0.7148	0.5625	103
Paraguay	Americas	0.5255	High	0.3507	0.6701	0.5556	108

According to this survey, there is a positive correlation between the country's income level and its e-government ranking. High-income countries progress faster by expanding the scope and quality of their online services (OSI) with already advanced levels telecommunications infrastructure and human capital development. However, this is not universal. For example, Armenia is one of the 10 countries in the lower middle-income group that has a score above the global EGDI average – Armenia (0.5944), Georgia (0.6893), India (0.5669), Kyrgyzstan (0.5835), Philippines (0.6512), Republic of Moldova (0.6590), Sri Lanka (0.5751), Ukraine (0.6165), Uzbekistan (0.6207) and Viet Nam (0.5931).

Global EGDI has been increased from 0.47 in 2014 to 0.55 in 2018 due to continuous improvement of its subcomponent indices. OSI average is the fastest – from 0.39 to 0.57 or by an average of 40 per cent. This suggests that globally, there has been a steady progress in improving e-government and public services provision online. As for the EGDI itself, the TII, HCI and OSI indices' values are not intended as absolute measurements. Rather, they capture the online performance of countries

relative to each other at a particular point in time. EGDI and all 3 normalized indices TII, HCI and OSI have 4 levels which are: very high, high, middle and low. The EGDI index for Armenia was 0.59 which marked as high level and the rank of Armenia was 87 among other countries. As we see in Table 1, the OSI index for Armenia is one of the lowest among top 10 landlocked developing countries.

Conclusion

Introducing and implementing e-government is a difficult process, and its uptake among citizens can be slow. In order the process to succeed, ICT education should be implemented in all educational levels which will enable citizens and businesses to use the electronic tools and services because e-government is generally less popular with lower educated people. The barriers to greater online citizens' engagement in policy-making are not only technological but also cultural, organizational and constitutional. In other words, e-government has important technical aspects but primarily it is a social and political phenomenon driven by human behavior. In order e-government to be effective, the RA's govern-

ments should combine the technical infrastructure with social, organizational and policy changes. Especially, it requires public sector reforms and government policy, including legislation, regulations and social programs which have to adapt to the new requirements. Besides, this is important to investigate current and future needs in order to find out the areas or sectors where more e-services can be implemented. Overcoming these challenges will require greater efforts to raise awareness and capacity both within governments and among citizens. As a whole, the RA's government should coordinate work and strategy for successful e-government implementation.

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Информация о конфликте интересов: авторы не имеют конфликта интересов для декларации.

Conflicts of Interest: the author has no conflict of interest to declare.

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