

## The Assessment of e-Government Initiatives in the Republic of Kosovo

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**Abstract:** The aim of this manuscript is to evaluate the e-government initiatives in the Republic of Kosovo (current state in 2015). Secondary data were analyzed in the literature review while the collection of primary data was done through an online survey with the citizens of the country. The use of secondary data resulted with a thorough situational analysis on interoperability, electronic services, network, hardware and software of the e-government in Kosovo. The collection of the primary data gave for the first time a glimpse of the e-government efficiency in Kosovo. Moreover, using the same design of the questionnaires as were used in the similar survey for the EU 27+ countries enabled the easy comparison of the results between two surveys. An initiative was transformed into a real strategy while being advertised with pomposity by the Kosovo Government in 2008. Until now it has fallen short in implementation and enabling its citizens to interact with the public agencies and its officials.

**Key words:** Efficiency, e-government, strategy, questionnaires, Republic of Kosovo

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### INTRODUCTION

Recent initiatives associated with so-called knowledge economy are among other tied to the concept of e-government. According to Brueckner (2005), e-government is the consolidated service of conventional government practices on using data and Information and Communication Technology (ICT) to spread, recover and store data or services. He highlights the benefits that internet offers from a simplicity of connecting people to purchasing things with one simple click. McClure claims that e-government refers to government's use of ICT, particularly web-based Internet applications to enhance the access to and delivery of governmental information and services to citizens, employees, other agencies, or other bodies. It has the potential to build better relationships between government and the public by making interaction smoother, easier and more efficient. It also promises increased effectiveness among public authorities, improved decision making and service delivery (Fountain, 2007).

There are four general types of e-government systems and services: government to government, government to citizen and government to business (Wang and Liao, 2008) and citizens to government

(Jeong, 2007). Besides this traditional classification, (Belanger and Hiller, 2006) propose an electronic government framework which suggest new categorization of the e-government types ranging from government with individuals-delivering services to government with businesses in the marketplace. The development of Web 2.0 created the environment for transition in to e-government 2.0. To implement this transition. Sun *et al.* (2015) suggest an e-government 2.0 framework which consists of process integration, resource integration, back-office integration and front office integration.

Although, the benefits from good governance practices might be down to subjectivity the outcomes from bad governance practices are always universally condemned. The bad governance practices do not only create useless bureaucratic procedures but they can also affect directly the life of people. To avoid these situations, a good governance practices have to be put on place. Furthermore we are witnessing the real benefits from e-government all over the world. In Netherlands with less budget, fewer personnel and fewer physical local offices, the services for the unemployed are nowadays mainly organized through the one integrated Internet portal called werk.nl. The use of electronic services for job seekers is mandatory. Authentication is through use of

the national e ID (DigiD). The main objective of this paper is to find out the current state of similar efforts in the Republic of Kosovo. Basically, there are two main research questions: (Sun *et al.*, 2013). How e-government is designed and implemented in Kosovo? and (Brueckner, 2005). How effective is e-government in Kosovo? The aim of this research is to assess and evaluate the overall e-government system that was planned and realized before and after the electronic governance strategy 2009-2015 (EGS '19-'15). About >6 year after the start of implementation the EGS '19-'15 and its Action Plan faced lack of commitment, cancellations, delays and inappropriate planning and implementations. To explore more and create an overall assessment and evaluation, this research will focus in detail on what is planned and what has been implemented based on the EGS '19-'15 document and its Action Plan. The study is structured as follows. After the general introduction the Methodology is presented and then the Results are discussed. Then the study limitations are mentioned. Finally, the conclusion provides the overall overview of the discussed issues.

## MATERIALS AND METHODS

The research uses primary and secondary data gathered in 2015 to answer the research questions. Literature review is performed in order to build a theoretical framework which is the main guide for the research. The right literature online libraries are used. These online libraries allow to access the relevant secondary data such as articles, papers, textbooks, etc., which help to address the discussed issues. Beside the online libraries the Kosovo governmental portal and portals of individual ministries and agencies are used to search for the official documents, annual reports or any relevant documents that can be useful for the research. Through the use of secondary data, a situational analysis of the Kosovo e-government strategy, action plan, technology implementation and its current outcomes is performed to answer the first research question.

To gather the primary data and also address the second research question, an online survey is performed with random Kosovo citizens. This survey targeted the Internet population of Kosovo which has 2 million habitants in total. Excluding the population under 10 year old, Kosovo has a population for the research purpose of 1-4 million or 77.6% based on the last Census in 20119. The Internet penetration in Kosovo is at least 76.62%, where 94.21% use it from home (KAICT, 2013).

The survey was an end-user web aided survey with a relatively small sample ( $n = 41$ ) while the confidence level is 95% and confidence interval is  $\pm 15$ . Due to low amount of the research sample the confidence interval is high but not enough to impact the overall goal of the survey which is to assess approximate trends and compare them with those in EU27+. To measure the "Effective Government" the following indicators for the evaluation were used. These comprise user satisfaction, fulfilment of expectations, likelihood of re-use and perceived benefits (EC, 2013).

## RESULTS AND DISCUSSIONS

In 2008, Kosovo government introduced "Electronic Governance Strategy 2009-2015". This strategy states the actual situation in 2008, vision, legislation, interoperability and challenges that will be followed during the implementation period. Through an Action Plan, Kosovo Government planned the investments of >180 million through a 7 year period. An overall 171 activities were planned where 151 of them are focused on the Infrastructure, systems and electronic services and Interoperability while 20 are related to policy making and legislation. Status of Planned Activities of Action Plan for EGS '09-'15 (Fig. 1).

There was a good framework strategy and action plan, upon which Republic of Kosovo started building e-government services. At the time, it was a very up-to-date and comprehensive strategy. Moreover, this strategy was followed by political marketing and promises that not only will Kosovo become the next Estonia in term of using e-government but also the country will be the next Silicon Valley in the European space soon.

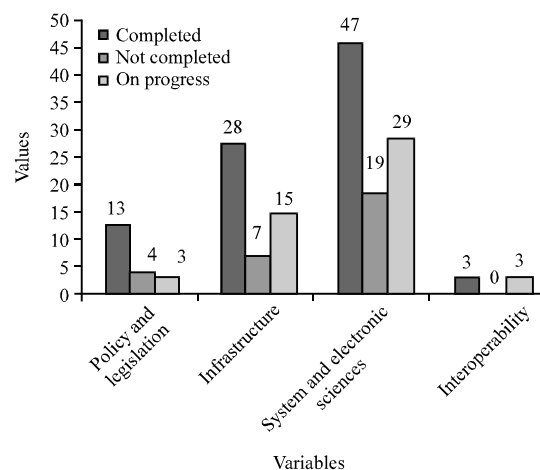


Fig. 1: Status of planned activities of action plan for EGS '09-'15; Annual Report, Ministry of Public Administration in 2013

Discarding the level of ignorance in these daily cheap political marketing it was encouraging the enthusiasm of the Kosovo government when it comes to e-government. This enthusiasm was only followed by a few governmental institutions. These institutions that pushed to implement the EGS '09-'15 are mainly institutions that collect or manage taxes such as Kosovo Tax Administration and Kosovo Customs. Basically they had the support and the incentive to pursue their projects, so they can collect and manage the taxes better and faster.

The main governmental portal has decent design and layout, followed by informational content about most issues in Kosovo. Although, this is mostly one-way communication, since there is no space for citizen's or business's inputs. The local portals have a unified design and functionality. These are well-structured in the governmental portal's domain. Although they have the same functionality (33 portals), most of the Local Municipalities have disabled some of the functionalities, leaving the portals only with some general information. Moreover, a Local Digital Agenda was published in 2013 as an attempt to further develop and unify the local e-services but to current date there has been only a written document.

From 2009 under the supervision of Ministry of Public Administration (MPA), specifically of Information Society Agency, there were around 3 million investments in upgrade and increase network capacity of the governmental networks. The governmental institutions are connected in the State Network through fiber optic cable (>400 km) and microwave network (170 connections). The 35-38 of the local municipalities are connected through the state network while only 23 of them are connected through fiber optic. The rest still use microwave network. About >500 locations in Pristina and other municipalities are managed by >200 servers with TB capacity. About >95% of civil registration centers are included in the state network currently. All the government local or central institutions including Kosovo's embassies are able to access the state network and use the State IT System resources through VPN connection. All the institutions use VoIP to communicate among them. Sponsored by World Bank the first stage for building a national data center was completed in 2013. This data center stores and backups all the governmental data.

By procurement law the governmental institutions are obliged to accept the lowest price for the requested hardware while it is forbidden to have a specific brand preference (this is possible only in case of spare parts). But this does not stop the governmental institutions to

request hardware by requiring discretely hardware with specific features that only some or one brand has. This is why in the institutions you can find hardware from different brands but HP, IBM, DELL and CISCO are the dominating ones. As for Software solutions, Microsoft is the main provider of desktops Windows 7/8 and Microsoft Office packages, servers Microsoft Servers 2003/2008, SQL Servers 2003/2005/2008, Microsoft ISA Servers, Visual Studio. Net, Exchange Servers 2003/2007, SharePoint Servers 2003/2008. Moreover, Microsoft Essentials together with Sophos are the main antivirus solutions. Database platforms are often built in Microsoft SQL Server 2003/2008, Oracle 9/10, MySQL and Microsoft Access (Microsoft Software List allowed to Government of Kosovo/MPA). Furthermore, some management information systems used in the Governmental Institutions include also Document Management Systems (DMS), Electronic Voting in Kosovo assembly, Property Tax Software, Free Balance, Payment Management System, Personnel Management system, Asset Management System, Vehicle Registration System, etc.

#### **User satisfaction with public applications and services:**

The survey showed that barely the half of the respondents used internet very little for the public applications (54% in average) during last 12 month. Normally, they used the internet to interact with public applications weekly (26% in average) for any of the purposes stated. Respondents used the internet mostly to obtain information from public administrations websites (88% in average) and to contact public administrations by e-mail (73% in average). On the other hand they used the internet less to participate in online consultations on policy issues organized by local, regional, national or European government (39% in average) and to participate in collaborative platforms (34%).

The overall satisfaction of using the public applications was gained to obtain information from public administrations websites (3.9/10) and to download official forms that are necessary to obtain a public service (3.2/10). The lowest satisfaction was achieved in relation to participation in interactive discussions about local, regional, national or European policy issues (1.0/10) and in collaborative platforms (1.7/10). The overall satisfaction was at least two times lower than one achieved in EU 27+ countries.

During last 12 month, more than half of the respondents consulted national government portal (59% in average), regional portal (54% in average) or local portal (68% in average). While doing so the highest achieved satisfaction stemmed from consulting national governmental portal (2.4/10), followed by local portals

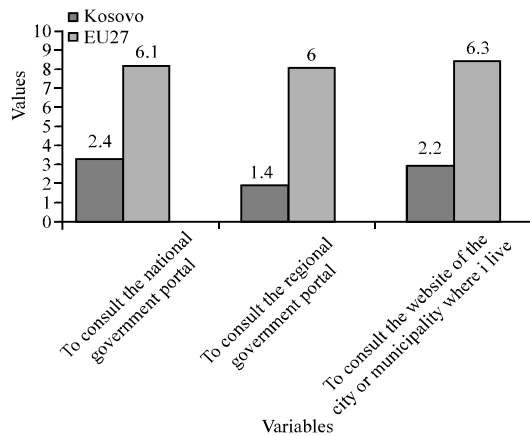


Fig. 2: Comparison of satisfaction with consultation of national, regional and local portals between Kosovo and EU27+(Scale 0-10 where 10 is the best)

(2.2/10) and very low level of satisfaction was gained from consulting regional governmental portals (1.4/10). In comparison with the satisfaction measured for the same factors in EU27+, the level of satisfaction in Kosovo is 3 to (Fountain, 2007) times lower (Fig. 2).

At least two thirds of the respondents had the opportunity for one of the 19 life events stated to come into contact with a public agency or officials during last 12 month. For their own or someone else's purposes they were mostly Looking for a job (54%) and declaring income taxes (46%) while they had less contact with public agencies or officials in relation to Retire (7%), reporting a crime (15%) and starting an inheritance procedure for a death of a close relative (15%). During this interaction, only the quarter of them did not use e-government (27% in average) while two thirds of used e-government channels such as e-mail, internet website and tablet/smartphone applications them (73% in average). From the e-government services, internet website was the most used electronic channel (38% in average) which respondents used to to become unemployed (55%) and Looking for a job (50%). Taking in consideration the high level of unemployment the use of anytools including e-government is understandable. When using e-government to contact public administration officials or agencies the habitants searched for information on a governmental website (31%) or sent or received emails (27%) while some of them (6%) attended or were proposed to a public service to which they were entitled without asking for it.

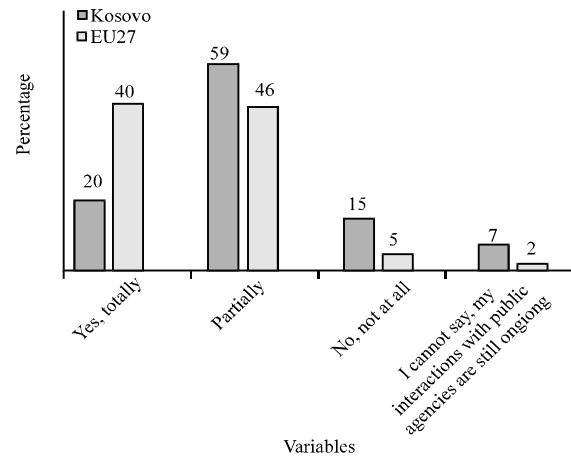


Fig. 3: Answers to question 'In the end, did you get what you wanted or needed?'

**Level of fulfilment using public online services:** When it comes to the level of the fulfillment of the requirements when using public online services, respondents were surprised for better level in some cases (37%) but mostly they felt neither better nor worse (54%). Meanwhile, a small number of respondents (10%) felt that their expectations were not met. While, this is not an indicator of the quality of the services because the governmental services have usually lower level of expectations from its citizens. That expectations have always some solid background which can be related to the fact that only small number of the respondents (20%) fully achieved what they sought, 59% got it partially or were still on procedure (7%) and 15% did not get what they wanted or needed (Fig. 3).

**Likelihood of re-use of public online services and perceived benefits:** Half of the respondents in Kosovo perceive the impact of e-government as high while the rest has a neutral attitude (34% in average) or disagree with the benefits of e-government (10% in average). Respondents are motivated by money and time saving or flexibility gaining, but they are discouraged by the fact that their service quality was better or their trust was increased in public administration. While the likelihood of re-using e-channels in the next interaction with public administration in case of one or more of 19 life events occur is in average 62% which is higher than those in EU 27+ (50%). The preferred mode of interaction is shown in Fig. 4.

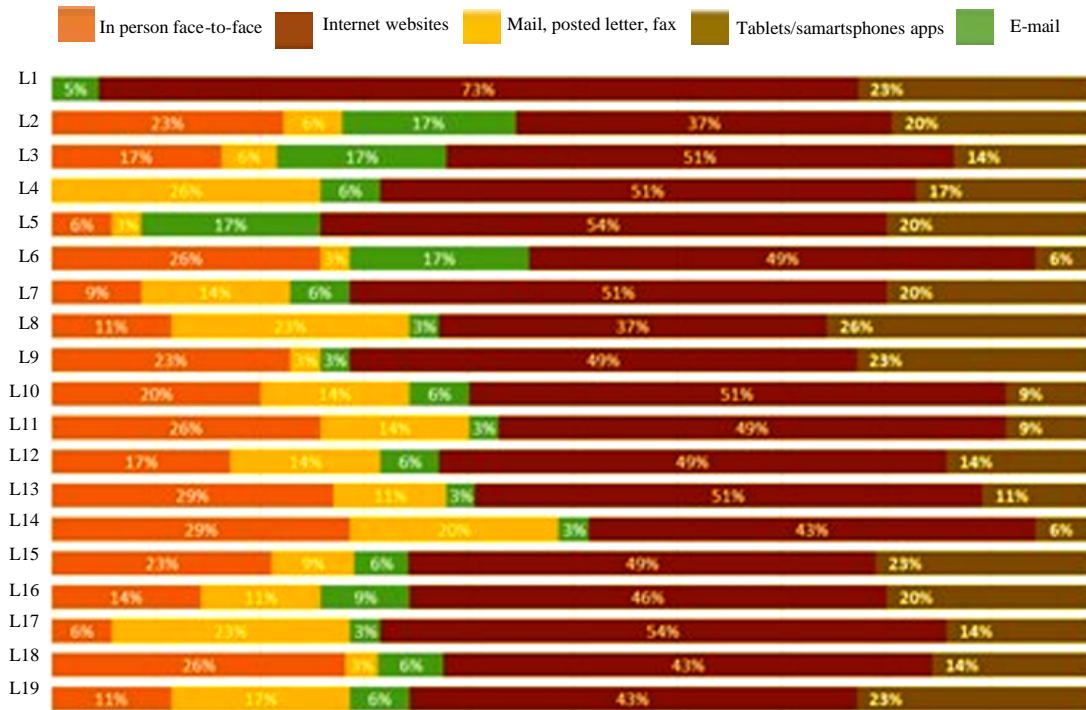


Fig. 4: Answers to question ‘If you were to come into contact again with public agencies or officials as a result of these events by which of the following means would you prefer to interact?’

## CONCLUSION

This study presents the selected outcomes of the project focused on the evaluation of the e-government activities in the Republic of Kosovo. Basically, two types of research were conducted. First, secondary data collection helped to reveal the current state of selected aspects of e-government. Second the survey gathering data from Kosovo citizens provided better understanding of the main issues and bottlenecks of the current state. These are mutually interconnected and thus difficult to be solved with the implementation of simple solutions (Bures, 2006). There are several recommendations that can be defined based on the acquired results. For instance, an external expertise should be engaged to assess technologies available for implementation (ranging from low cost control mechanisms (Bajer and Krejcar, 2015; Bilek and Krejcar 2015) to augmented real applications). Moreover, the new strategy should be designed including the approach of all agencies involved in the e-governmental projects comprising the elements of knowledge management (Bures, 2006). Furthermore, all the procurement procedures involving e-government should be strictly monitored and managed only by the

agency of information society. This will ensure proper strategy implementation and total compatibility of the e-services.

## LIMITATIONS

The lack of data was the main challenge of this research. While we enter in the final year of the targeted deadline for implementation there is a lack of a comprehensive documentation which would report and present that overall status of the EGS '19-'15 implementation. Besides some annual short reports from individual institutions there is no other information about the current status of e-governmental systems. Furthermore, for the collection of secondary data also “follow the money” approach was implemented. Kosovo Central Budget tables were used to identify what is implemented and what was transferred to the next year budget.

The cooperation with the governmental institutions, especially with MPA as a leading institution in the e-government strategy and implementation was impossible. This should be also taken into consideration. Through official channels, MPA

responded negatively or did not respond at all to the inquiries to provide any report, documents or any kind of information about e-government. To have as much information as possible also unofficial information were exploited. This fact might bias the understanding of the nature and the technology behind electronic government.

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