ELECTRONIC GOVERNMENT AT THE LOCAL LEVEL IN THE REPUBLIC OF SERBIA

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Abstract : *The increased availability of Internet technologies has led to that the development and management of electronic government (e-Government) systems have become a key element of modern public administration. Electronic government represents the use of Information and Communication Technologies and the Internet by the public administration in order to provide information and services to citizens and business, with itself becoming more efficient and transparent. This paper presents the analysis of the services which administration at the local level gives to citizens and business electronically. The study included nineteen elected local governments in the Republic of Serbia, where the services provided by electronic means and their plans and proposals for the development of the existing system of electronic administration have been observed. Study results showed the necessity for changes in the current understanding of the use of modern Information and Communication Technologies and the Internet in the operations of local governments of modern public administration.*

Key words : *Electronic Government Systems, Information and Communication Technology, Public administration, Local governments*

1. INTRODUCTION AND THEORY

Information and Communication Technologies (ICT) have revolutionionary changed the way of life, learning, work and entertainment in just one human generation. ICTs are transforming the way of interaction between people, enterprises and public institutions [1]. Information and Communication Technologies are the corestone of the creation of a new economy based on knowledge, innovations and digital information [2]. The digital revolution, which has affected all segments of society, has not bypassed the public sector [3]. In the Internet and modern technology, great potential has been recognized for reforming the traditional view of government as a hierarchically organized "state influence on society" into a modern citizen service and economy. The focus is the user's needs whose legitimacy is measured not only by the legality of treatment but also by the efficiency and quality of services provided [4]. Technology helps governments to improve their services and to build trust between government and enterprises, civil servants and the public in general [5].

Electronic services (e-Services) enable users, through their computer and with the help of the Internet, to use the public administration portals in order to inform themselves about the competencies and procedure, submit a request and receive individual certificates and other documents. Portal represents a single point of access to corresponding online services for citizens and businesses. Requirements that the national portal should fulfill:

- being a central and unique point of access and realization of e-Services for citizens and businesses - a central point for the realization of Government-to-Citizen and Government-to-Business electronic services,
- identification (authentication and authorization) of citizens and business entities for the use of online electronic public administration services is centralized and in one place only, and
- to serve as a unique point of publication of online e-Services of a ministry, state body or agency, establishing such unique standards for the development and implementation of e-Services of public administration [6].

The introduction of e-Government systems has brought operational benefits for local municipalities and their employees, including the reduction in paperwork, the provision of continuous service availability to customers, a reduction in response time, and a reduction in error rate [7]. Each stakeholder has different interests and objectives that may have an impact on the success and take-up of the e-Government system [8]. There are three broad classifications of e-Government systems: Government-to-Government (G2G), Government-to-Citizen (G2C), and Government-to-Business (G2B) [9].

Snead and Wright (2014) [10] found that most of the studies that investigated e-Government systems are focused on interaction with citizens, or G2C systems. In addition, citizens are receiving the widest array of services from the e-Government applications [11]. Implementation of e-Government systems and appropriate applications require acquisition of new skills from the government employees [12]. That is why it is important to further investigate G2C e-Government systems, not only from the user perspective but also from the perspective of public employees.

In 2010, the Digital Agenda Authority of the Republic of Serbia launched an e-Government portal (*http://www.euprava.gov.rs/*) for citizens, businesses, and local governments to improve economic efficiency and citizens' quality of life. All e-Government services were developed by Digital Agenda Authority, as a central government body, aimed at creating a simpler everyday existence for private individuals and businesses and more efficient public administration. E-Government portal provides that certain procedures, which have so far been carried out on the counter, can be done from home or without physical arrival on the counter, from the moment of releasing the Portal.

Serbia lags behind the successful transition countries and her economic growth is based more on domestic consumption and imports (due to privatization revenues and borrowing abroad), but the reforms and competitiveness. Public administration reform in Serbia (at all levels of government, local, provincial and central) has not progressed sufficiently. Public administration is still large, expensive, inefficient and does not represent a quality service for citizens and the private sector. The deep recession, as a result of the global economic crisis, further complicated the implementation of the e-Government concept. Investments in Information and Communication Technologies have been significantly reduced in 2009 [12] and this trend has continued in the upcoming period. After two years of insignificant recovery from the crisis, Serbia experienced a second wave of recession in 2012 [13]. The limiting factor in the development of e-Government was the unstable political situation in the country, caused by holding parliamentary and presidential elections in May 2012, which reforms put on the back burner, and thus the introduction of e-Government.

Based on the latest available statistics, 168 local government municipalities are currently providing 162 different pieces of information and services for citizens and businesses [14, 15]. The Digital Agenda Authority is responsible for the training of all current and new municipal government employees that are working directly with e-Government portals. According to the United Nations e-Government survey report, Serbia rapidly increased its world ranking to 39th position [12].

The main goal of the paper is to investigate the conditions and impact of the integration of modern ICT in public administration with the intention to provide improvements in business performance, both local governments individually and the Republic of Serbia from the point of public administration. Furthermore, we investigated the experiences of selected municipalities in the Republic of Serbia after the implementation of the system of electronic administration and represent their successes and challenges to other municipalities so that they could apply their experience, and to implement electronic administration systems - all with the aim of facilitating business and providing public administration services to citizens and economy.

2. METHODOLOGY

The research in this paper is carried out in two phases. The phases of the research are explained below in this chapter.

Phase 1: Getting acquainted with the necessary concepts - a review of the relevant literature

A literature review included a database search on the Internet that contain texts and research relevant to the terms that are relevant to this work, such as:

- Information and Communication Technologies,
- Public administration,
- Electronic public administration,
- National e-Government portals,
- Territorial Organization of the Republic of Serbia and
- Internet presentations of local governments.

Phase 2: Qualitative research - case studies

Case studies are used to gather the necessary information on selected local governments at a given moment of time and a certain environment. A telephone interview was used as the primary way of collecting data, and some of the local governments were contacted by e-mail. As part of this research case studies were conducted in nineteen elected local governments, in order to collect information on their experiences regarding the implemented/developed e-Government systems and their proposals and plans for further development of existing systems.

3. RESULTS

The paper presents the research of existing electronic government services in selected local government units in the Republic of Serbia. The research involved representatives of nineteen local governments, cities and municipalities: Vrnjačka Banja, Sremski Karlovci, Zrenjanin, Apatin, Blace, Arandjelovac, Kovačica, Kruševac, Vranje, Surdulica, Niš-City, Niš-Medijana, Ruma, Plandište, Loznica, Veliko Gradiste, Kučevo, Ćićevac and Kosjerić. A large number of cities and municipalities were invited to participate in the research, however, only those nineteen responded to the call and was willing to participate. Representatives of local governments, municipalities and cities that participated in the survey were contacted by telephone and/or by e-mail. The respondents were mostly members of the municipal/city management board and members of the public administration development sector.

The remainder of this paper provides an overview of the results of talks with representatives of local governments. Phone calls lasted at intervals of five to twenty-five minutes. The topic of the interview was the improvement of the e-Government service at the local level, and each of the examiners was supposed to answer questions related to:

- initiating the process of development/implementation of the e-Government service,
- reason for the implementation of the service,
- the activities that the local government unit makes to increase the positive impacts of implemented electronic government services,
- does the local government offer a link to the e-Government Portal of the Republic of Serbia, and
- what are the recommended plans for further development.

For the most of the local municipal process of development and implementation of e-Government services was initiated by the Mayor of the city. Vrnjačka Banja, Apatin, Niš-Medijana, Ruma, Kučevo and Kosjerić were one of those. The Municipality of Sremski Karlovci and Surdulica municipality initiated this process by the councilors and the secretary of the municipal assembly. The City of Aranđelovac and the Municipality of Blace initiated the process by employed in the municipal administration. In the City of Zrenjanin, Kruševac and Loznica, the process was initiated by the mayor's office and the deputy mayor. In Kovačica, process was initiated by an expert associate in the office for local economic development. In Municipality of Vranje employed in the City administration initiatedthe implementation process, while in Niš the process was initiated by employees in the local administration. In Plandište municipality employees in the local economic development office initiated the process, and the implementation process in the Municipality of Ćićevac was ordered by the competent Ministry to set up the Internet presentation of the Municipality. In the Municipality of Veliko Gradište respondents were not able to answer who was the initiator of the process.

When considering the reason for the implementation of the e-Government service, a large number of citizens born in the observed municipality/city, who currently live and work abroad, showed the leading cause, and the following local municipals implemented e-Government systems to help their citizens: Vrnjačka Banja, Sremski Karlovci, Blace, Kruševac, Vranje, Niš-City, Kučevo and Kosjerić. The City of Zrenjanin and Niš-Medijana, the municipality of Plandište and the City of Loznica, as the main reason for the implementation of the e-Government system, cite the needs of citizens and the economy, attract investments and achieve a more transparent public administration. The Municipality of Apatin states that young people, after graduating from secondary schools, massively migrate to university cities and that there is a need for documents issued by the Municipality, and for that reason they implemented e-Government services. Improving the work of the municipal administration, better communication with business entities and promotion of tourism are listed as the main reasons for implementation in the City of Aranđelovac, Kovačica municipality and the Municipality of Ruma. Municipality of Surdulica, Ćićevac municipality and Veliko Gradište municipality received an order from the competent Ministry or followed the example of other cities/municipalities that successfully implemented e-Government systems.

Activities that local governments make to increase the positive impacts of implemented system:

- promotion of existing e-Government services (in printed electronic media, local press): Vrnjačka Banja, Zrenjanin, Apatin, Niš-City and Loznica,
- promotion through printed materials in the closet hall: Niš-Medijana and Kosjeric,
- interviews with citizens, promotional campaigns on the Internet portal of the city and training for using the system: Blace, Kruševac, Vranje and Ruma,
- without answer (no particular activities): Sremski Karlovci, Aranđelovac, Kovačica, Surdulica, Veliko Gradište, Kučevo and Ćićevac.

Links to the e-Government portal of the Republic of Serbia are offered by Vrnjačka Banja, Zrenjanin, Apatin, Aranđelovac, Kovačica, Kruševac, Vranje, Niš-City, Niš-Medijana, Ruma, Loznica and Veliko Gradište, while Blace, Surdulica, Plandište, Kučevo, Ćićevac and Kosjerić do not have a link to the national portal.

Table 1. shows the plans for further development by local governments individually.

Table 1: Plans for further development of e-Government systems in the cities/municipalities

Municipality/city	Planned activities
Vrnjačka Banja	Development of additional electronic administration systems, which is conditioned by the purchase of modern computer equipment
Sremski Karlovci	Setting up e-Government services to the National Portal of e-Government of the Republic of Serbia as soon as possible
Zrenjanin	Applying calls for financing projects in the field of improving public administration from foreign donors
Apatin	Increasing the number of employees who will work on the implementation of new electronic services
Blace	Setting up the service to the official e-Government portal of the Republic of Serbia
Aranđelovac	Increasing the number of services offered by the Municipality of Aranđelovac on the official e-Government portal of the Republic of Serbia
Kovačica	Regularly update the official Internet presentation because of a lack of funding improvements
Kruševac	Improvement of existing e-Government services, increasing the number of services on the portal e-Government, the development of a Geographical Information System (GIS) where the potential investors can familiarize themselves with available sites for building
Vranje	Increasing the number of services provided by the City of Vranje offers on the portal e-Government of the Republic of Serbia
Surdulica	Setting up the service to the official e-Government portal of the Republic of Serbia
Niš – City	Improving existing services of local government
Niš – Medijana	Improving existing services electronic administration of the Municipality
Ruma	Without particular plans
Plandište	Increasing the visibility of the developed electronic services
Loznica	Improving the existing services offered electronically, both at the local level and on the e-Government portal of the Republic of Serbia, increasing the number of services offered to legal entities, developing GIS, developing a mobile application that would help potential investors in selecting a parcel for building and investing, linking with other, developed Internet presentations of city institutions
Veliko Gradište	Education inhabitants of the Municipality to use the services offered by electronic means (planned maintenance training in secondary schools and for interested citizens), improving the functioning of the local portal
Kučevo	Establishing a link with the central e-Government portal of the Republic of Serbia
Ćićevac	Development and implementation of the e-Government system on the local portal and on the national e-Government portal of the Republic of Serbia
Kosjerić	Establishing a link with the official e-Government portal of the Republic of Serbia and improving the existing e-Government services on the local portal

4. DISCUSSION

The research results suggest necessary changes in the current understanding of the use of modern Information and Communication Technologies in the operations of local governments, in order to more effective and efficient service delivery to citizens and businesses in the Republic of Serbia. It is noticable that the official e-Government portal of the Republic of Serbia, which has been made available to the local governments completely free of charge, is unutilized. Leaders of local governments are in most opted for the independent development of e-Government services through local Internet presentations of cities/municipalities, and not for the utilization of national, central e-Government portal of the Republic of Serbia. These practices showed that the individual units of local government, separately, evolved exactly the same services, and had to pay several times the taxpayers of the Republic of Serbia, each within their local governments. The alternative was that the developed services placed on the central portal of e-Government use of the cost of all municipalities and cities, but she did not flourish.

Local governments, in the implementation of e-Government systems, saw certain qualities and benefits that this process brings them and they are presented in Table 2.

Table 2: Qualities/benefits associated with local governments implemented e-Government services

Municipality/city	Qualities/benefits
Vrnjačka Banja	Increased rate of tax collection on real estate, greater satisfaction of citizens by municipal administration
Sremski Karlovci	Greater citizen satisfaction with municipal administration
Zrenjanin	Better communication with citizens, more investment in the City, clearer management of City resources
Apatin	Satisfied citizens of municipal administration, more satisfied representatives of companies, quick reaction to municipal problems (System 48)
Blace	Without particular answer
Aranđelovac	Better communication with business entities, faster solving of communal problems
Kovačica	Strengthening the performance of local government
Kruševac	The competent Ministry recognized the efforts of the City leaders and donated all the necessary equipment for the holding of electronic sessions of the City assembly, increased the collection fee for issuing the documents from the registers and improved communication with potential investors
Vranje	More transparent work of local administration, the greater satisfaction of citizens and businesses
Surdulica	More investors, more tourists, better promotion of tourism potentials (Vlasina Lake)
Niš – City	Increased interest of investors, less crowd at counters, less paper documents
Niš – Medijana	Satisfied business people and citizens which enables easier communication with the Mayor
Ruma	More investments
Plandište	Without particular answer
Loznica	Higher number of investments in the City, more efficient operation of the City administration, reduction of paper documents and waiting for citizens at counters, greater visibility of the tourist potentials of the City
Veliko Gradište	Without particular answer
Kučevo	Increased number of requests for issuance of documents from registry books
Ćićevac	Without particular answer
Kosjerić	Less crowds at the counters, more satisfied citizens living and working abroad, increased citizen satisfaction with local government, the increased number of small investments in tourism, efficient work of the employees in the municipal administration

5. CONCLUSION

Research has shown that the majority of local governments as the main reasons for the development/implementation of e-Government services cited:
- attracting investments in local government units,
- promotion of potentials of local governments, especially tourism, and
- providing necessary services (in terms of accessibility of necessary copies and documents online) to fellow citizens living and working abroad.

Overall, the general impression is that the level of awareness and interest of municipal and city officials and employees of municipal and city governments for the introduction of services provided by electronic means is low when concernig G2C model. Representatives of citizens - councilors are also uninterested as evidenced by the lack of e-mail addresses of councilors on the official Internet presentations of local governments.

In contrast, leaders of local governments often claim that e-Government services are essential to attract investment in the cities/municipalities. Model G2B is considered as very important for the future development of local government and arousing much more of the interests of the leaders and employees in the observed local governments. The reason for that is to more effectively improve the visibility of their local resources and raise the capacity of municipal governments.

Also, representatives of the local governments cite the following problems as the most frequently appeared ones:
- the lack of financial resources and the inability to hire people to deal with e-Government systems,
- minimal interest of citizens for services provided electronically, especially in smaller communities,
- the lack of access to central registers and data unavailability.

Some of the local governments see the central portal of e-Government as a certain form of competitor, and they are apprehensive of losing income from issuance of various documents, in the case of using a central portal.

Future research may include quantitative studies, conducting questionnaires in selected local government units, and the collection and analysis of data on the success/effectiveness of e-Government in selected local government units, especially in the field of Government-to-Business sector.

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