# **E-Government in Croatia**

JURICA ŠIMURINA Faculty of Economics and Business University of Zagreb Trg J. F. Kennedy 6, 10000 Zagreb **CROATIA** jsimurina@efzg.hr http://www.efzg.hr DOMAGOJ HRUŠKA Faculty of Economics and Business University of Zagreb Trg J. F. Kennedy 6, 10000 Zagreb CROATIA dhruska@efzg.hr http://www.efzg.hr MILIVOJ MARKOVIĆ Faculty of Economics and Business University of Zagreb Trg J. F. Kennedy 6, 10000 Zagreb CROATIA mmarkovic@efzg.hr http://www.efzg.hr

*Abstract:* - This paper looks at the current level of implementation and possibilities for further improvements of e-government in Croatia. Given a brief history of e-government implementation in general, and in Croatia in particular, we do not have long and firm historical record. Thus, we analyze the issue given the available experiences along with the comparative analysis to several Central and East European countries (Czech Republic, Hungary and Slovenia). By doing so, we trace actual progress being made in implementation of information and communication technologies altogether and use of e-government and its potential in particular.

Key-Words: - e-government, ICT, Croatia, public administration, accountability, transparency

## **1** Introduction

The term e-government was virtually unknown a decade ago. However, the term, as an identified activity and as a research topic has grown dramatically. Even though research on this topic has expanded dramatically, Heeks and Bailur [8] point out a poor state of the research: "...viewed as the offspring of information systems and public administration – accused at times of philosophical, theoretical, methodological, and practical shortcomings – and shows all signs of having inherited the expected 'generic' profile".

Even though one may have negative view on the research so far, this area is still new and new research is done every day. This paper is a small contribution to that effort.

In this paper we first focus on the background of egovernment and after we give an analysis of egovernment in Croatia.

## 2 Background

In order to define the term e-government, we use definition provided by Basu [9]: "E-government refers to the use by government agencies of information technologies ... that have the ability to transform relations with citizens, businesses and other arms of government". In terms of actually using these technologies following are some ends, better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. Benefits resulting from these activities could be less corruption, increased transparency, greater convenience, revenue growth and cost reductions. Singla [10] also distinguishes imperatives of e-governance as being anticipation, transparency and accountability. It is further argued that the interaction among different players in society (see fig.1) should not only be every four or five years when elections are held. Information and communication technologies (ICT) have a potential to shift command and control mechanisms both at the policy and implementation levels.





#### Source: [10]

Some authors point out that distinction must be made when discussing e-government and e-governance. Marche and McNiven [1] explain that governance stresses the way in which decisions are made, while government stresses the way in which these decisions are carried out.

It is not very often that one reads hallmarks about the quality of government provided services. Titles talking about sluggishness of public administration are much common to encounter. Governments' justifications are generally based on the magnitude of public administration, diversification of demands from citizens, lack of ability to integrate various systems and inability of synergy among governmental departments. On the other hand, most of the large enterprises in the private sector, with equal, if not greater number of employees, seem to deal with these problems much better. As citizens are getting more acquainted with the functioning of public administration (courtesy of various non-profit institutions and accessibility of government information from web services) on one side, and growing opportunity cost (loss of time) on other, demand is for at least equal quality of service from public administration.

With the emergence of web services, it seams that new possibilities to enhance citizen - government relationship are overwhelming.

## **3** E-Government in Croatia

From Croatian perspective, e-Government is a noteworthy challenge not just for the public officials but for its citizens as well. Being a fairly young democracy Croatia faces many transparency issues in government decision making (governance) as well as in enforcement.

According to annual Transparency International Corruption Perception 2006 Report, Croatia holds not so bright rank of 69 (out of 163 countries worldwide) with score of 3.4. Finland is a frontrunner of the list as the lowest corruption perceived country with total score of 9.6 [2].

ICTs certainly do their part in enlightening the citizens on governmental actions and entice them to get more engaged in influencing public policy.

Technology solutions enable government to service citizens in a more timely, effective and cost efficient way [3]. As a prerequisite for effective e-Government, as well as other e-initiatives, broader issues regarding IT usage such as number of computers per household, availability of broadband internet access at fair prices, computer literacy of citizens, secure data exchange and much more need to be considered (see fig.2, fig.3 and fig.4).

Fig.2 Personal computers per 1000 people







2000

2001

Croatia Czech Republic Hungary Slovenia

2002

2003

2004

2005

Fig.3 Internet users per 1000 people

1996

1997

1998

1999

0

Source: [11]



Fig.4 Broadbend users per 1000 people



From the figures above we can see Croatia lagging behind almost all of the time. Even though improvement is remarkable, Croatia did not build up its ICT infrastructure and ICT literacy to its potential. Even though this gap can be overcome, for ICT literacy in particular, unlike physical infrastructure, some time will full potential pass before of e-government implementation is actually possible. If citizens are not ready to use new technologies, a question emerges: is it now the right time to improve ICT infrastructure of the Government? The answer is yes. As ICT gets more user friendly and as new generations complete their education (all the school in Croatia have Internet access) along with knowledge upgrading of others, full potential of egovernment can be obtained in fairly short time.

However, these problems should be resolved in parallel with the actions of disclosure of government activities using the web as dissemination portal. This view is somewhat analog to attitudes contained in *Council Resolution on the implementation of the e-Europe 2005 Action Plan* [4] which stresses e-Business, e-Health and eLearning besides e-Government as other key areas in strengthening e-Economy and e-Europe altogether. Overview of Croatia's current position and further steps that should strengthen e-Competitiveness of Croatia and subsequently better utilize e-Government initiatives are stipulated in the *Operational Plan for Execution of e-Croatia Program with Overview of Activities in 2007* [5].

### 3.1. Performance of e-Government

Web portals can be considered as a primary vehicle for facilitating e-Government initiatives. Vast majority of person-to-person interactions between citizens and public administration can be eliminated or, better yet, reallocated to on-line services, thus eliminating unnecessary queuing, hence increasing public administration efficiency. Processing forms, registrations, various permit issuing are just few of the benefits for the citizens. E-health has the same goals within the health care system. It needs to be said that main beneficiaries of these actions are not just citizens but business as well. This could greatly influence Croatia's competitiveness position among transition economies competing for foreign investments. Company registration and filing taxes on-line are just two processes that have found to be much convenient to perform in web environment.

Numerous researches were conducted while trying to asses the degree of interactivity available within a particular site. Most common web sites analyzed were of state and local governments and parliaments. Pina [6] analyzed government and parliament web sites in 19 OECD countries according to three main variables: financial accountability, political dimension and citizen dialogue. He concluded that ICTs do not promote financial accountability further away from legal requirements. Nevertheless, having all the financial data in one place greatly helps citizens and businesses in searching for relevant information.

Regarding the web accessibility in Croatia, an annual research was conducted in September 2006 [7]. The methodology is consistent to similar researches carried out in the EU member states. This fact enables comparison of the results between the EU member states and Croatia as well as monitoring year to year progress of e-government implementation in Croatia. Result of the research is an index in percentage terms measuring accessibility of public services on the Internet. Altogether 20 areas of e-management (public management) were measured, 12 pertaining to services for citizens and 8 to services for businesses. A score of 0 to 4 was applicable for every service. The score 0 indicating that service is not available on-line or no web page exists and 4 indicating that service is completely available on-line. If a service is available fully on-line than the percentage for that service is 100%.

Services were divided into 4 different clusters: Income-Generating cluster, Registration cluster, Returns cluster, and Permit cluster.

Overall results show online services for businesses to top the online service to citizens by 60 to 46%. In comparison to the EU, in 2006 Croatia had lower scores in all clusters.

The income cluster scored 65% (EU 94%), but this is a significant progress from 47% on year before and only 3% in 2004.

Registration cluster scored 40% (EU 72%), but again this cluster shows significant progress from a year earlier (35%), and especially from 2004 when the score was only 1%.

Similar pattern is found for other two clusters as well. Permit cluster (37%, EU 61%) shows significant progress from 1% in 2004. Returns cluster scored 61% and 71% in the EU. Again this shows great progress from 11% in 2004.

Research shows that overall trend is favorable for Croatia, however, more work needs to be done in order to be near the EU averages as Croatia enters the EU.

#### 3.2 Phases of e-government implementation

By the end of 2003 Croatia began to take steps in forming foundations for development of e-government solutions. At the time Croatia was no different than any other transition country in Europe. It was characterized by low level of administrative transparency, lack of maturity for standardization and measurement, low income and the low Internet penetration rate.

However, awareness in Croatia is increasing with introduction of e-government solutions in different areas of public services. First attempts in that direction were done in April 2000 when Croatian Government ordered the study on National Strategy. In June 2000 work group was formed. After official procedures in January 2002 National Strategy of Development of ICT was adopted by the Croatian Government and the Parliament. After establishment of infrastructure for development of egovernment solutions, actual implementation began. In December 2003 the Central Government Office for e-Croatia was established at a cabinet level responsible for implementation of the project e-Croatia 2007. Head of the Office is directly responsible to the Prime Minister [12].

In December 2003 the Government accepted the operational plan for implementation of e-Croatia 2007 program, proposed by the Central Government Office for e-Croatia. According to the plan, Croatia should emphasize modern online public services in the area of e-government, e-learning services, e-health services, e-business environment, widespread availability of broadband access at competitive rates and a secure information infrastructure.

The European Commission defined a set of services consisting of twelve basic sets of services for citizens and eight basic sets of services for businesses. They set the foundation for the development of services by e-Administration and the project HITRO.HR within the implementation of the e-Croatia initiative. Certain progress was made in the area of most important public services for citizens, e.g. submission of income tax returns, employment office services, social benefits, issuing identification papers, vehicle registration, issuing construction licenses, police contact, birth certificates, admissions to higher education facilities, change of address and health services information. Beside, some progress was made in the area of business services, primarily submission of business tax returns, value added tax, social insurance of employees, registration with the business subjects registry, submission of data to the Bureau of Statistics, customs reports, public bidding services, and environment impact licenses.

One more issue of utmost importance for development of e-governments solutions in Croatia is security of e-government. High security is vital precondition for e-government development. Public needs to have complete trust in the systems in order to use it, and the public sector needs a high level of security to handle electronic contacts with citizens. In that sense, a digital signature for citizens, companies, and public institutions is a major component of an e-government strategy.

In January 2002 Croatian Parliament adopted the Digital Signature Act and implementation started in June 2002. National certification center was created at the Ministry of Commerce and an agency for e-signatures was certified. In this way Croatian infrastructure was harmonized with the EU Directive 1999/93/EC [12].

Ambitious goals were set in 2002 by creating the Program for Health Care computerization, which was by design divided into a project for primary health care computerization, and a project for hospital systems computerization. However, as the Government changed, many projects were put on hold due to the lack of funds, or waiting for evaluation.

In order to properly organize network infrastructure the process had to be run from the Government level. Therefore, Governmental communication network infrastructure was designed. Development of this network is a vital precondition for public on-line services in Croatia.

Regarding the internal structure of the Central Government Administrative Office for e-Croatia, the following departments were established: the Department of Rationalization of Investments in Information and Communication technologies, the Department of e-Croatia initiative Implementation Coordination, and the Department of International Cooperation

One of the recent initiatives was the digital register of voters. The register is available to citizens via the web service of the Central Government Administrative Office for Public Administration (SDDU). The Government Election Committee provides access to data on local and national elections.

# 4. Conclusion

This paper clearly shows implementation of egovernment to be necessary in order to boost accountability, transparency and efficiency of public administration. In order to achieve these goals, both soft (computer literacy) and hard (physical) infrastructure must be in place.

Croatia has done well in past years in order to establish a viable e-Government. Indicators are improving rapidly, but they still lag behind neighboring countries. Furthermore, full implementation with feedback from the Government will take some time to take place. Both citizens and the Government are not yet ready for full implementation of e-Government in Croatia.

With prospects of near accession to the EU, Croatia certainly needs to step up its efforts for implementation of e-Government in order to reach the EU averages by the time of entry into the EU, and for its own progress in public administration's accountability, transparency and efficiency, thus becoming more competitive in the global market.

References:

- Marche, S., McNiven, J. D., E-Government and E-Governance: The Future Isn't What It Used To Be, *Canadian Journal of Administrative Sciences*, Vol. 20, No. 1, 2003.,
- [2] Transparency International, Transparency International Corruptions Perceptions Index 2006. http://www.transparency.hr/dokumenti/ipk2006/CPI\_ 2006 Press Pack Eng.pdf
- [3] Evans , D., Yen, d. C., E-government: An analysis for implementation: Framework for understanding cultural and social impact, *Government Information Quarterly*, Vol. 22, Issue 3, 2005,
- [4] Council of the European Union, Council Resolution on the implementation of the eEurope 2005 Action Plan, *Legislative Acts and other Instruments*, 2003. http://ec.europa.eu/information\_society/eeurope/2005 /doc/all\_about/benchmarking/resolution.pdf
- [5] Central State Administrative Office for e-Croatia, Operational Plan for Execution of e-Croatia Program with Overview of Activities in 2007. http://www.e-hrvatska.hr/sdu/hr/ehrv/contentParagraph/011111111111113/document1/ Operativni plan eHrvatska za 2007.pdf
- [6] Pina, V., Torres, L., Acerete B., Are ICTs promoting government accountability? A comparative analysis of e-governance developments in 19 OECD countries, *Critical Perspectives on Accounting*, Vol. 18, Issue 5, 2007.
- [7], Benchmarking study online availability of public services, 2006.
  <u>http://www.e-hrvatska.hr/sdu/en/Dokumenti</u> /StrategijeIProgrami/categoryParagraph/06/document /Bench 2006 english.pdf
- [8], Heeks, R, Bailur, S., Analyzing e-government research: Perspectives, philosophies, theories,

methods, and practice, *Government Information Quarterly*, Elsevier, Vol. 24, 2007, pp 243-265.

- [9], Basu, S, E-Government and Developing Countries: An Overview, *International Review of Law Computers*, Vol. 18, No. 1, 2004, pp 109-132.
- [10], Singla, M. L., Transforming the National Bone Marrow, *Journal of Management Research*, Vol. 2, No. 3, 2002, pp 165-175.
- [11], World Development Indicators, World Bank, Washington, database.
- [12], Popovic, Z., Croatian e-Government Practice, *Conference Proceedings* "E-Government – A Reality for SEE Countires?, Budva, 2004.