Economic Development, Technological Change, and Growth

E-Government – A Demand-Side Innovation Policy in Romania

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Abstract: The present paper presents with example the actual status of E-Government in Romania. We start with an introduction which presents the importance of government implications in public procurement for innovation with concrete data of government's investments and policies for innovation. In this section we include objectives and prior work. We approach our research by presenting web 2. 0 technologies for E-government services with examples from other countries. The article focuses on the actual status of E-government in Romania. The main conclusions of the paper are presented in the end of the article. Our results are summarized in a discussion section. The value and implications of our research is in the area of governmental public sector innovation.

Keywords: E-Government; public procurements for innovation; web 2.0; e-tax; innovation policy

JEL Classification: O32; O33; O38

1 Introduction

We present in this paper the actual status of Romanian's government implications in public procurement for innovation with an accent on e-government services.

At present, Romania does not have a National Innovation Strategy to define clear innovation policies and priorities (the project aiming to define this Strategy has only started in 2011). Therefore, innovation policies are addressed in some of the programmes of the 2007-2013 National RDI Plan (e.g. the "Innovation" and "Partnership in priority domains"), some operations under the Sectoral Operational Programmes "Increasing Economic Competitiveness" and "Regional Development").

Specific categories of innovation policies, like non-technological, social, public sector innovation, design, creativity and services innovation are poorly represented in the current RDI policy mix. Some demand-side innovation policies are more

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developed and broadly used (e.g. regulations for stimulating innovation), while others are either in an incipient stage (e.g. tax incentives for RDI) or absent (e.g. public procurement for innovation, pre-commercial public procurement or catalytic procurement).

In 2010, further to the launch of the Europe 2020 Strategy, the 2011-2013 National Reform Programme (NRP) was released. The Programme continues the reforms started in the 2007-2010 National Reform Plan and proposes new reforms in response to the EC's Europe 2020 Strategy, first Annual Growth Survey and Euro Plus Pact that marked the start of a new cycle of economic governance in the EU and the first European semester of ex-ante and integrated policy coordination.

2. Problem Statement

E-Government means Internet + online public services. Knowledge management in government services online is dedicated to knowledge management of local communities and groups of people involved in the various actions.

In developing good e-Government policies there is a need to take into consideration the following aspects: the regional development, the demographic distribution, the ICT citizens 'use, the culture of good public governance.

The use of information technologies in public administration means primarily improved services to citizens and organizations. E-Government development was possible due to the emergence of Internet and its use spread rapidly. The first use in public administration has meant presenting information on a site, followed by allowing downloading necessary forms in relationship with the public. Later were possible filling online forms and make electronic payment transactions.

ICT is already widely used by government bodies, as well as in enterprises, but e-Government involves much more than tools. Effective E-government also involves rethinking organizations and processes, and change behavior so that public services are delivered more efficiently to those who need to use them.

People can move freely and therefore should have access to public services outside their home country.

Successes and potential of e-Government are already clearly visible in several EU countries (Europe's official documents, 2012). Electronic invoicing in Denmark saves 150 million Euros of taxpayers' money and 50 million year business money. If electronic billing would be introduced across the EU, annual savings could add up to over \in 50 billion. Disabled people in Belgium can now access their dedicated resources in seconds, whereas previously it was 3 or 4 weeks.

E-Government has reached a critical juncture. Further progress requires success factors. Among them, electronic authentication (IDM - interoperable electronic identification management) for access to public services, electronic document authentication and electronic archiving are considered key factors.

The spread e-Government applications include: information / portals, administrative use, using legislative, answers questions of general interest, area guide, receiving applications and petitions, the presentation of various online forms and surveys, stock e-jobs, attracting activity of the disabled or elderly, C2A, vote via the Internet.

Also providing service oriented citizens groups such as youth, students, minorities, the elderly.

Another trend is the development of complex applications: B2a, guides online purchases, auctions, C2A, register online portals.

In this context we enunciate the following research problem: what are the main problems that modern e-Government services can address and how can we measure the benefits?

We enunciate the following research hypothesis: modern e-Government services determine good public governance.

3. The Research Model

In order to prove the research hypothesis and to address the research problem we propose the following research model (Figure. 1).

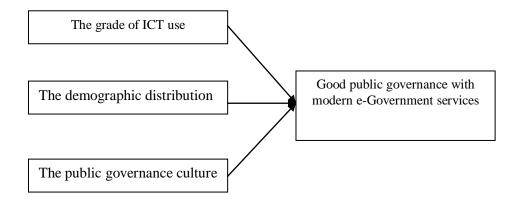


Figure 1. The Research Model

Our research methodology consists in describing facts by taking into consideration the three variables from the research model: (1) the grade of ICT use; (2) the demographic distribution, and (3) the public governance culture.

Considering the facts that we observed for Romania's case we must say that:

- Romania doesn't have a good spread of ICT use in rural areas;
- Romania has a lot of public administration agencies which means a lot of bureaucracy, a low interest in developing e-Government services in rural areas and not even in urban areas;
- Romania doesn't have a culture for public governance: very often citizen
 perceive public administration as a place where they have to pay taxes and
 receive nothing in exchange. This is the result of corruption, bad
 management and loss of civic and ethical responsibility.

When we discuss USA's case study for USA governmental agencies wikis we discuss the following already implemented projects:

- Intellipedia 16 intelligence agencies content; Intellipedia case study at http://www.collaborationproject.org/display/case/ODNI+Intellipedia;
- Diplopedia available to business external agencies through Intranet; Diplopedia case study at http://www.collaborationproject.org/display/case/Diplopedia;
- Environmental Protection Agency and the Puget Sound Information Access Challenge—wiki; case study; http://www.collaborationproject.org/display/case/Environmental+Protection+Agency%27s+Puget+Sound+Information+Challenge;
- OMB MAX Federal Community Management and Budget Office wiki;
- OMB USAspendingGov Requirements Community wiki open to public for addressing comments to federal financing;
- GSA's USA Services Intergovernmental Collaborative Work Environment collaborative space for 20 intergovernmental communities;
- U. S. Court of Appeals for the 7th Circuit, Practitioner's Handbook wiki open to public;
- NASA Wiki for Object Oriented Data Terminology wiki for object oriented technology detained by NASA California Institute of Technology.

Considering Romania's case we observe that governmental agencies or public sector agencies don't have any wiki page.

Norway is one of the countries with the most effective payment and e-government solutions in the world. This is a result of continuing policy efforts over the last two decades and considerable amounts of financial resources have been invested in a large number of e-government and other infrastructural projects. The policy attention on e-governance and simplification is expected to remain unabated in the next years expecting to yield high socioeconomic returns in form of time and money saved by private and small business users of public services.

A new and improved version of the e-government service for businesses "Altinn", Norway's citizen- centric online portal was implemented in 2010. The initiative called Altinn II is part of the Norwegian government's ambitions to maintain world leadership in e-government. In 2009 more than 440.000 businesses chose to do their statutory reporting through Altinn, and at that time over 700 different public forms were available in the web portal.

Altinn can be viewed from different perspectives:

- The user perspective: The public web portal www.altinn.no, where the business sector is given access to electronic forms and services, and can find information about rules. Very often professional users will relate to Altinn as a web service solution (ws. altinn. no) where they can submit the data directly from their own computer system (see list in Norwegian over computer systems with integration towards Altinn).
- The organisational perspective (interactional perspective): Interdepartmental cooperation to reduce the form burdens the businesses have towards the government.
- The IT perspective (interactional perspective): A "tool box" public authorities and agencies can use to produce and operate their electronic forms and services both towards the public and towards the businesses.

Considering the Romania's case we observe the current state:

- www.admiterea2001.ro
- www.e-licitatie.ro (European Commission said in the country report on ICT, published on August 4th 2009 the actual development for Romania. Commission stated eProcurement systems development, more and more frequently used in a continuous progression in Romania pointing out that the number of auctions in electronic public procurement (SEAP www.e-licitatie.ro) increased from under 2% to over 12%)
- www.e-guvernare.ro (Services available through the Unique Form Service, to the "filing statements" by taxpayers filing returns CAS, CASS, unemployment and tax returns 100, 101, 102, 103, 300, 390)

- Virtual Payment counter offers the possibility of online payments for certain categories of duty. Thus, individuals can pay online, the state budget through credit cards, income tax represents tax obligations, tax prepayments title, adjustments for income taxes and tax duties related to the following categories of income:
 - a) income from commercial activities;
 - b) income from liberal professions;
 - c) income from intellectual property rights;
 - d) income from the transfer of use of property;
 - e) income from transfer of securities;
 - f) income from operations for the sale of foreign currency forward contract basis:
 - g) income from agricultural activities;
 - h) transfer income from the personal property;
 - i) income from salaries for the employees are required to establish, declare and pay income tax
 - j) traffic fines applied in Bucharest Romanian citizens residing or foreign nationals residing in Bucharest

Local taxes payment through the Internet by legislation (Ordinance no. 24/2002, Act no. 291/2002) established the obligation of all municipalities and cities to develop electronic payment systems for local taxes.

eTax is an integrated electronic payment of local taxes, to relieve the obligations of tax payer SoftNet developed for the electronic payment and use of Banc Post SA.

From the diffused "infokiosks" which often provides information and ticket purchase in various public places to interactive portals, citizen relationship with government is often based on digital services. Spread but, as with cultural digital information, has led to other unintended effects, of which perhaps the most important is "lost" citizens in the very large volume of digital information, together with "information noise".

In Romania, in recent years, public administration, libraries, museums, tourist offices, church, etc. have developed their own sites, which contain significant volumes of digital information.

Effects of "loss and information noise" began to appear frequently and users in Romania, when looking for information in Romanian. Thus, defining a single access portal for is a long time ago initiative in Romania.

Concept called "eRomania" released on June 16, 2009 the Ministry of Communications and Information, is mandatory and necessary for early development eRomania single portal. Creating effective portal eRomania is labor intensive, requiring resources and expertise for at least two levels: Portal development skills and expertise in digital content.

E-Romania portal, as was shown in concept will provide two types of information, corresponding to the two levels of achievement: the national level that includes general information, wide enough to admit to another level of detail and territorial level - associated portals include detailed information of interest to the regional (county, city).

Portal structure is hierarchical, from the territorial and national level to both open, so that, depending on content development, to insert new items of interest.

If, at first, E-Government meant a lot of websites which contains documents available for citizens in order to be downloaded, today E-Government means a lot more: paying online budget taxes, having available public services by making use of Internet. But, in Romania we have a lot to come. We are still in the phase where the citizens only download some files, print it, fill in and go locally at the public service to dispose it.

We are not in the phase where e-government services mean fees for citizens.

4. Results

Modern e-Government services refers to communities of people. Web 2.0 technologies are to be used in:

- social networks like MySpace, Facebook, LinkedIn and Second Life. These online spaces allow users to achieve interaction with others forming an online community. Governance involves creating dedicated groups such as crime networks, groups dedicated to recover from potential disasters and local legislative districts, www.citizencalling.com;
- Blogs belonging to public figures and through which they interact with those who voted for them. This type of communication can help the official public meetings.
- Pictures and Movies: The government can use YouTube to encourage such residents and those visiting a place to post videos with images of places they liked best events you liked or about places considered dangerous. (Intersections, sidewalks and areas with extensive vegetation) service payment of taxes in the U.S. has launched a youtube channel www.youtube.com/irsvideos;
- Polls interactive online survey conducted by Zoomerang and SurveyMonkey are common and used to collect opinions about the inhabitants of a city community problems.
- Internal processes Wikis: wikis or products such as Microsoft SharePoint can be used to standardize processes, functions or departments of common terms or entities participating in government. Simple processes such as how to process a

request for public information as a bill payable are inclined to documentation via wikis. Certainly such information may be posted directly on a website, but the advantage is precisely wiki content enrichment by those participating in the process, so that everything can happen quickly.

http://www.usa.gov/webcontent/technology/wikis.shtml;

- Wikis external processes: processes that use the interaction with the government. How to recycle a computer? What to do if they find a fridge in the street? How citizens can apply to use food labels? Interactivity they offer wikis gives a new dimension different ideas about solving a problem;
- Wikis "outs" external: most of those working in the business of government have no idea what it means designing a budget, but many constituents are expressed too bombastic. A wiki allows for a budget involved explain the elements of a budget. http://transparentfederalbudget.com/;
- Next generation will probably mean 911 cameras built into mobile phones that can send just about anyone reporting risk;
- Blogs and wikis for Customer Services and Feedback.

5. Conclusion

Romania doesn't have modern e-Government services probably because of no interest from politics governmental body. Innovation is required in every industry, economic activities and even in public administration. To not take into consideration innovation for citizens means poor administration and bad management policies.

E-government not only facilitates innovation. It can also "force" innovation on government, for two key reasons. Some kind of data needs this kind of management. There is a lot f public data which must be available to citizens and to administrative bodies, to research and innovation sector and to any other public use.

Modern e-Government services is a request for bad e-practices because bad e-practices require a public governmental response.

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7. References

Noveck, B. S. (2009). Wiki Government How Technology Can Make Government Better. *Democracy Stronger, and Citizens More Powerful*. Brookings Institution Press.

Flor, M. L. & Oltra, M. J. (2004). Identification of innovating firms through technological innovation indicators: an application to the Spanish ceramic tile industry. *Research Policy*, Elsevier, Vol. 33(2), pp. 323-336, March.

West, D. M. (2005). *Digital Government: Technology and Public Sector Performance*. Princeton University Press.

Spar, D. L. (2001). Ruling the waves: Cycles of discovery, chaos, and wealth from compass to the internet. New York: Harcourt Brace.

OECD (1999). Survey of Anti-Corruption Measures in the Public Sector in OECD Countries. Japan.

Mansell, R. & When, U. (1998). *Knowledge Societies: Information Technology for Sustainable Development*. New York: Oxford University Press for the United Nations.

Cornes, R. & Sandler, T. (1996). *The Theory of Externalities, Public Goods and Club Goods*. 2nd edition. Cambridge: Cambridge University Press.

Murtha, T. P., & Lenway, S. A. (1994). Country capabilities and the strategic state: How national political institutions affect multinational corporations' strategies. *Strategic Management Journal*, 15: 113–129.

www.businessday.ro.

www.wall-street.ro.

www.zf.ro.

http://www.proinno-europe.eu/inno-metrics/page/romania.

http://ec.europa.eu/research/era/facts/innovation/innovation_en.htm.

http://ec.europa.eu/enterprise/policies/innovation/files/swd_effectiveness_en.pdf.

Trends and Challenges in Demand-Side Innovation Policies in Europe Thematic Report 2011 under Specific Contract for the Integration of INNO Policy TrendChart with ERAWATCH (2011-2012) - http://www.proinno-europe.eu/trendchart.

http://ec.europa.eu/research/era/facts/innovation/innovation_en.htm.

http://ec.europa.eu/enterprise/policies/innovation/files/swd_effectiveness_en.pdf.

COMMISSION OF THE EUROPEAN COMMUNITIES, i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All http://ec.europa.eu/information_society/activities/egovernment/docs/highlights/comm_pdf_com_2006 _0173_f_en_acte.pdf.

Concepția și realizarea portalului eRomânia, informații preluate de pe site-ul oficial al MCSI/ Designing and development of ERomania portal, information taken from the official website of MCSI: http://www.mcsi.ro/Minister/Comunicate-de-presa/Conceptia-si-realizarea-portaluluieRomania.