

## E-Commerce Developments

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# Transforming Governments through E-Government Projects

*E-Government has been recognized as a powerful tool to help all types of economies – developed, developing and transition – to bring the benefits of the emerging global information society to the largest possible part of their respective populations. The E-Government Handbook for Developing Countries, published by November 2002 by the World Bank infoDev program, is a first attempt to bring together key resources and examples of best practices from around the world and to provide an operational tool to help E-Government practitioners move ahead swiftly and efficiently as possible, according to Bruno Lanvin, infoDev Program Manager. The Handbook was a project of infoDev and the Center for Democracy and Technology (CDT). The full text is available on the website: [www.infodev.org](http://www.infodev.org).*

E-government is about transforming the way government interacts with the governed. The process is neither quick nor simple. It requires a coherent strategy, beginning with an examination of the nation's political will, resources, regulatory environment, and ability of the population to make use of planned technologies.

The success of e-government requires fundamentally changing how government works and how people view the ways in which government helps them. There is no one size fits all strategy in implementing e-government, but we have identified five essential elements in the transformation process.

Some words of caution – the primary motivation for e-government reforms should not be focused on saving money or cutting staff. While those can often be valuable results, the savings incurred from e-government initiatives most often benefit businesses and citizens utilizing the improved system, and not necessarily the government agencies that invested in ICT.

In order to realize efficiencies, moreover, governments must develop a citizen-centric model that in-

volves key stakeholders outside of government – businesses, trade associations, scientists, academics, and NGOs. Without their input, e-government projects are unlikely to succeed, because citizens will not use a system that does not respond to their needs. Once a consensus has been reached, leaders must fully communicate the vision to the public.

### 1. Process Reform

Critical to the success of e-government transformation is the understanding that e-government is not just about the automation of existing process and inefficiencies. Rather, it is about the creation of new processes and new relationships between governed and governor.

The use of ICT is not merely a cost or labor saving tool, to be achieved simply by giving government officials computers or automating manual records. Rather, if conceived and designed correctly, e-government is a solution that can genuinely revolutionize the process of government itself. Therefore, government leaders planning e-government projects should first examine the function or operation to which they want to apply ICT: For example, governments should use ICT to bring transparency to problems, where the transparency represents a new way of addressing the problem.

Or, to take another example, if the subject of an e-government project is procurement, officials and companies that do business with the government should first examine the entire process by which the government publishes solicitations and qualifies bidders and the requirements for filing bids.

Process Reform Recommendations:

- Plan carefully – streamline and consolidate offline processes before putting them online.

- Don't automate inefficiencies – eliminate them.
- Respond to local needs – draw on the ideas of those who will use the system and enlist their support.
- Try to focus projects from the user perspective.
- Dispel resistance of civil servants by training and incentives to support reform.
- Ensure commitment of resources for the long-term.

### 1.1. Process Reform Models

#### 1.1.1. The Central Vigilance Commission in India: Transforming how authorities deal with corruption.

Many nations face challenges in fighting corruption, due in part to a lack of transparency in anti-corruption enforcement. Public exposure can both boost public confidence that action is being taken and serve as an important deterrent.

The Central Vigilance Commission of India is an independent government oversight agency involved in the fight against corruption. In January 2000, the CVC began publishing on the Internet the names of officials suspected of extorting bribes and the disciplinary actions taken against them. The CVC site exemplifies process reform by creating a new method for dealing with corruption: exposure and public censure. The CVC site, by giving citizens ready access to information, also helps boost confidence in the system by showing that complaints are acted upon, while also creating accountability, for citizens can immediately determine if action has not been taken.

Website: <http://www.cvc.nic.in>.

Case study: [http://www1.worldbank.org/publicsector/egov/cvc\\_cs.htm](http://www1.worldbank.org/publicsector/egov/cvc_cs.htm).

#### 1.1.2. E-Procurement System, Chile: Making government procurement more efficient and transparent by implementing comprehensive procurement reform.

Prior to the establishment of portals to conduct government transactions online, the government procurement system in Chile was fragmented and burdened with various, sometimes contradictory regulatory frameworks. In 1998, the government formed the Communications and Information Technology Unit (UTIC) and conferred on it the mandate of coordinating e-government efforts in an attempt to control costs and bring transparency to the system.

The UTIC completely revamped the underlying system of procurement by centralizing all purchasing ac-

tivities through a central web site. This web site automatically sends emails to private companies registered on the system when contracts come up for bid and takes bids online. Not only has the new system streamlined procurement, it has also created new methods of oversight and accountability. For example, the site also includes statistics and other information on past performance of government contractors.

Website: [http://www.compraschile.co/Publico/entrada\\_publico.asp](http://www.compraschile.co/Publico/entrada_publico.asp) (in Spanish).

Case study: [http://www1.worldbank.org/publicsector/egov/eprocurement\\_chile.htm](http://www1.worldbank.org/publicsector/egov/eprocurement_chile.htm).

## 2. Leadership

In order to achieve the e-government transformation, elected officials and administrators are needed at all levels of government who understand the technology and the policy goals and who will push reform.

E-government requires strong political leadership in order to succeed. Strong leadership can ensure the long-term commitment of resources and expertise and the cooperation of disparate factions. Leadership can also articulate a unifying theme that can propel the e-government initiative through all the necessary steps. For example, by declaring Internet access a human right, the Estonian leadership created strong national support for the implementation of the Tiger Leap Forward Initiative, a multi-sectoral program that is aiming to create 300 Internet centers in Estonia by 2002 and whose eventual goal is to create a completely e-literate society. While it is not essential that governments declare Internet access a human right, leaders do need to understand that results will be most likely if they elevate the public profile of their vision and press for its successful implementation by tying it to broader human development and democratization goals.

The e-procurement system in Chile illustrates another approach to the leadership factor: One way for governments to spur development of e-government is through the creation of a central government agency that has not only expertise but also institutional authority to implement change. In Chile, this was the Communications and Information Technology Unit (UTIC), created in 1998 and given the mandate of coordinating e-government efforts. In taking the lead role in developing an e-procurement system, it garnered support at the cabinet level, lobbied the political parties and labor unions, and lined up private backing from a consortium of companies that included the nation's telecom com-

panies, a well-known consulting firm, and the leading Chilean Internet-based applications company.

Leadership Recommendations:

- Create an office and designate a senior official as a focal point for e-government innovation, planning and oversight.
- Signal Presidential/ Prime Ministerial support for the initiative to ensure that all relevant departments and agencies support it.

### 2.1. Leadership Model

#### 2.1.1. *The Tiger Leap Initiative, Estonia: Mobilizing the bureaucracy with a unifying concept and Presidential leadership.*

Declaring Internet access a human right, Estonia is moving to provide Internet access to all its 1.5 million inhabitants by establishing local community Internet centers that provide free email and Internet access. In 1997, there were 80 centers operating. Plans are for 300 by 2002. Another element is a major program run by the Ministry of Education and funded in part with private investment, under which local governments and businesses cooperate to connect every school to the Internet, with the goal of producing a generation of Estonians who are 100 percent computer literate. The Estonian President was an outspoken advocate for the Internet, using his influence to press the initiative.

Case-study and report:

<http://www.wam.umd.edu/~abbate/Estonia/EestiNet/topics/tiger.html>;

<http://www.sdn.undp.org/it4dev/stories/estonia.html>;

<http://www.undp.ee/tigerleap/conclusion.html>.

## 3. Strategic Investment

Governments will need to prioritize some programs over others to maximize available funds in view of tightly limited resources. This will necessitate clear objectives for programs and a clear route to those objectives.

Developing nations must choose projects carefully in order to optimize their investment of time and resources. Projects should have clear value in terms of enhancing transparency, increasing citizen participation in the governance process, cutting bureaucratic red tape, or saving money. Standards and benchmarks must be established to measure the relative success of these projects. For example, in Gujarat, India, the automa-

tion of toll checkpoints resulted in a significant increase in revenue normally lost to corrupt border agents, so that the system paid for itself within a year.

Strategic Investment Recommendations:

- Define clear goals.
- Catalogue available resources, ranging from funding to personnel.
- Make short and long-term plans, with expected expenditures, income streams and deadlines.
- Designate an officer or organizing body that will oversee planning and budgets.
- Consider multi-technology approaches. Some communities may not be ready for the Internet, but other technologies like radio may better serve their needs.
- Consultations with local communities will help ensure that they benefit from technology.

### 3.1. Strategic Investment Example

#### 3.1.1. *Computerized Interstate Checkpoints, Gujarat, India: Generating increased revenue by automating the highway toll and fine collection system.*

The Indian state of Gujarat has an extensive road network that carries large volumes of commercial traffic. With nearly 25,000 trucks that enter the province daily, tolls and fines are a significant source of revenue and a tempting target for corruption. The Gujarat government in the past was ineffective at collecting tolls and stopping overloaded trucks (which caused numerous accidents) from entering the province and collecting fines from drivers. Delays and corruption at toll checkpoints were rampant.

In 1998, Gujarat authorities installed an electronic system for collecting tolls. Whereas in the past, toll collectors had wide latitude in assessing tolls and fines, the new system automated the weighing of trucks and the calculation of tolls and fines and ended cash transactions at the checkpoints by instituting a credit card payment system. The system was a good investment. Within one year, the system had paid for itself, illustrating how strategic investment, properly planned, can lead to long-term benefits.

Case study: <http://www1.worldbank.org/publicsector/egov/gujaratcs.htm>.

## 4. Collaboration

Governments will have to explore new relationships among government agencies as well as partnerships with the private sector and NGOs to ensure quality and accessibility of e-government. Agencies may have to overcome traditional reluctance to work with each other to maximize benefits of scale in e-government projects.

Collaboration among government entities, private enterprises and NGOs can assist policymakers in crafting meaningful reforms and can expedite the implementation of e-government. Private sector experts, who deeply understand topics such as e-commerce, information technology, marketing, and management, can advise government policymakers. The private sector may have considerable expertise that can help meet the challenges of increasing efficiency, capacity, and consumer (that is, citizen) satisfaction.

Collaboration Recommendations:

- In the planning phase, establish a consultative process that includes opportunities to hear from and speak with business, NGO's and other government agencies. Explain the goals of the e-government initiative and solicit suggestions.
- Take private sector advice and experience into account when designing systems. Respond to identified needs.
- Create incentives for the private sector to become active participants in reform.
- Encourage cooperation and integration between departments/ministries of government.
- Local champions will help projects succeed. To decrease skepticism in local communities, directly involve local leaders by making them representatives, and by teaching them IT skills they can pass on to their communities.
- Create local ownership. In conjunction with the establishment of a local management committee or body, handover of e-government projects should occur as soon as possible.
- Federal agencies and state and municipal agencies and authorities need to partner to ensure a smooth reform in services.

### 4.1. Collaboration Models

#### 4.1.1. Online Delivery of Land Titles, Karnataka, India

Karnataka's land registration records were kept as paper records updated by hand, until computerization

made data management much less onerous and more efficient. In order to bring about such radical changes in the system, however, the state government had to secure the cooperation of a number of stakeholders. For one, computerization of the records required the cooperation of the local village accountants who controlled the lucrative trade in land records management. Secondly, government bureaucrats, who were loath to take on new responsibilities, had to be trained to utilize a computerized database.

Case study: <http://www1.worldbank.org/publicsector/egov/bhoomi.cs.htm>.

#### 4.1.2. AfriAfya, Kenya: Public/private consortium using information exchange to improve health care services to the rural poor.

Kenyan health agencies and international aid organizations established AfriAfya, a public/private site that harnesses ICT to improve the health of rural Kenyans. The project relies on a small coordinating central hub and organizes up-to-date health information for communities that send it a steady stream of data from the countryside. These field centers are spread throughout the rural regions of Kenya, where 80 percent of the population lives. Doctors and caregivers can have instant access to vital information and statistics. Web site access granted to registered members only.

Case study: <http://www.inasp.org.uk/health/hif-afriafya.html>.

## 5. Civic Engagement

The success of e-government initiatives depends on an engaged citizenry and, to that end, efforts to foster civic engagement are critical.

The concept of e-government revolves around the citizen. E-government is not just a cost cutting or efficiency initiative, but rather is directed at bettering the lives of ordinary people. In order to develop this citizen-focused vision, policymakers must keep the ordinary citizen in mind when designing systems. If at all possible, policy makers and designers should encourage stakeholders – both government and non-government – to participate in defining what their shared vision of e-government should accomplish. And once that vision is clearly defined, leaders must communicate it across all sectors, not just to those who will implement it.

Civic Engagement Recommendations:

- Consult widely in designing systems.

- Design applications that are focused on the citizen.
- Combine e-government with legal reform efforts such as requiring public notice and comment in legislative and regulatory processes.
- Keep in mind differences in local culture when seeking to engage citizens.
- Design engagement opportunities that build on successful models.

### *5.1. Civic Engagement Model*

#### *5.1.1. State of the Environment Report, South Africa: An online environmental report, affording opportunities for continued public participation.*

The content of this environmental awareness site is

the result of extensive community participation. The participating communities identified six environmental priorities, which became the core issues addressed on the site, including: Pollution, Waste Management, Open Space, Conservation, Poverty, and Environmental Health. Visitors to the site are encouraged to continue giving input to determine what relevant information should be posted and to contribute materials or information that could be useful to the general public as well. <http://www.ngo.grida.no/soesa/nsoer/>.