

Advancing Return on Investment Analysis for Government Information Technology

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ABSTRACT

The Center for Technology in Government (CTG) in collaboration with SAP, the business software solutions provider to public sector organizations, conducted a research project focusing on improving government's ability to assess public returns on IT investments. The work conducted for this project and presented in this poster will be of particular interest to dg.o attendees since the project was based in part on five government case studies involving e-government initiatives in North America, Austria, and Israel. The public value framework developed in the project offers a useful resource to both academics and practitioners interested in better understanding, assessing, and communicating both tangible and intangible costs and benefits of government IT investments.

Categories and Subject Descriptors

C.4 [Computer Systems Organization]: Performance of Systems – *measurement techniques, performance attributes.*

General Terms

Measurement, Management, Performance, Design

Keywords

Public ROI, public value, IT investments, e-government

1. PROJECT ACTIVITIES

CTG developed a comprehensive, non-proprietary framework to guide government managers in designing and conducting public ROI assessments for their IT investments. The development of the framework was based on two main activities.

First, an international expert workshop was held in the summer of 2005. The project brought together over 20 public sector practitioners and academic and private sector thought leaders from organizations around the world, including Harvard University's John F. Kennedy School of Government, SAP, Accenture, Gartner Research, Cisco Systems, and a host of government agencies from North America and Europe. At a 2005 CTG workshop in Albany these leaders helped to define the core issues of government ROI analysis and framed the next steps of CTG's work.

Second, CTG conducted five public ROI case studies between January of 2006 and April 2006. The purpose of these case studies was to examine how the IT investments were conceived and developed, with particular attention to the role of public value in the process. The cases are:

1. The Austrian Federal Budgeting and Bookkeeping System - Federal Government of Austria's Enterprise Resource Planning (ERP) implementation to standardize the federal government's budgeting and bookkeeping processes.
2. Pennsylvania's Integrated Enterprise System - Commonwealth of Pennsylvania's ERP implementation to put in place the technical infrastructure and enterprise standards for core administrative functions.
3. The Government of Israel's Merkava Project - Government of Israel's ERP implementation to restructure the financial, logistics, and human resource components of government-wide administration.
4. Service New Brunswick - A multi-channel "single window" citizen access to and use of government services in New Brunswick, Canada.
5. The Washington State Digital Archives - The State of Washington's investment in digital archiving for government records to provide collection, preservation, and access to records of enduring legal and historical significance.

2. PROJECT FINDINGS

The results of the case studies and best practice research are presented in a public ROI assessment framework that emphasizes the point of view of the public, not the government, as the basis for the assessment (see Figure 1). The framework describes methods for identifying and assessing public value. The value propositions for public value assessment must be broadly conceived to do justice to the scope of government and how it affects individuals, groups, and both public and private organizations. This framework presents a new and more comprehensive way of describing public value, based on an expanded conceptualization of public value as both the delivery of *benefits directly to citizens* and enhancing the *value of*

government itself as a public asset. An IT investment that makes government more transparent, more just, and a better steward has added public value, a non-financial but nonetheless important return.

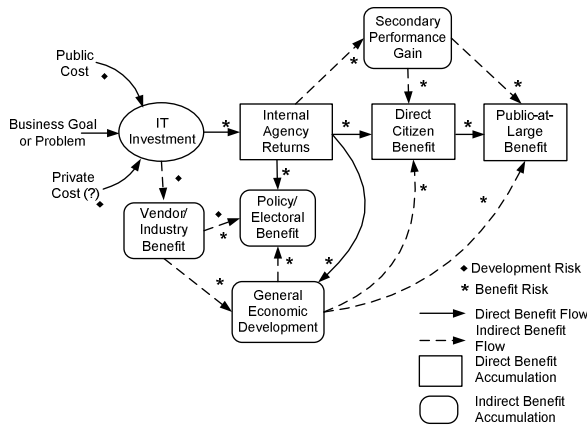


Figure 1. Public ROI Value Propositions

The framework then identifies six value types expressed in terms of impacts government IT can have on the interests of public stakeholders:

- **Financial** – impacts on current or anticipated income, asset values, liabilities, entitlements, and other aspects of wealth or risks to any of the above.
- **Political** – impacts on personal or corporate influence on government actions or policy, role in political affairs, or influence in political parties or prospects for current or future public office.
- **Social** – impacts on family or community relationships, social mobility, status, and identity.
- **Strategic** – impacts on economic or political advantage or opportunities, goals, resources for innovation or planning.
- **Ideological** – impacts on beliefs, moral or ethical commitments, alignment of government actions or policies or social outcomes with beliefs, or moral or ethical positions.
- **Stewardship** – impacts on the public’s view of government officials as faithful stewards or guardians

of the value of the government itself in terms of public trust, integrity, and legitimacy.

The framework also identifies the basic ways government IT investments generate public value. Finally, the framework describes how to trace these generating mechanisms working through specific business processes to produce different kinds of value. The framework is deliberately presented at a moderate level of generality to make it most widely applicable. Every government IT project will have its own unique goals, value propositions, and stakeholders. So this framework can be used to plan and guide a public value assessment, in combination with measurements, analysis tools, and reporting techniques chosen for the specific situation. The framework also provides a coherent conceptual scheme for identifying and studying the relationship of government IT business processes with desired outcomes both internal to and outside the government.

3. ACKNOWLEDGMENTS

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