"Public Procurement for e-government services: Challenges and problems related to the implementation of a new innovative scheme in Greek Local Authorities"

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Motivation

• To provide **empirical evidence** on the role of PPI in addressing social needs regarding the relationship of citizens and businesses with the public administration.

• **In particular**: To examine different aspects of a PPI process for the provision of **local e-government services** (LGAF pilot project) in a specific country context (**Greece**).
Main Actors

• Demand:
  o Basic procurer: The Central Union of Greek Municipalities (KEDE)
  o End-users: Eight (8) Greek Municipalities of various sizes and geographical characteristics

• Supply:
  o Prime Contractor: A large established Greek firm
  o Subcontractors: five (5) key actors (+ other occasional actors)
    o One (1) independent research laboratory
    o One (1) academic laboratory
    o One (1) small-medium firm
    o Two (2) micro firms
Objective of the LGAF pilot project

Product & Services

• The development of a **centralized software system (platform)** and the connection and interoperability of this system with the **existing (legacy) application systems** of local authorities for the:
  
  – Provision of high value-added **E-government Services** for citizens (e.g. family record certificates, municipal tax payments, request for recycling of electrical appliances etc.) and local businesses (e.g. municipal tax payments etc.).
  
  – Leverage of **Information and Knowledge Management systems** of municipalities
Challenge/Need

• **National level:** The offer of **e-government services of a high online sophistication level** to citizens/businesses would contribute to the:
  – Upgrading of citizens’ quality of life
  – Enhancement of businesses’ productivity and competitiveness
  – Economies of scale and more efficient resources management for public agencies

• **European level:** The provision of **cross-border (life-event) e-government services** to EU citizens/businesses that require the **coordination** of public authorities in different European Member States,
  – is an important pillar for the realization of **European single market** (challenge).
Methodological Approach

• **Case study work:**
  – *In-depth interviews* with the founders or CEOs of the participating firms and the research centre officials that played a key role in the platform design and development.
  – Using a *semi-structured questionnaire* trying to capture the objectives of the LGAF project, its innovative characteristics, the opportunities for knowledge-intensive entrepreneurship, the relationships among different actors, the obstacles for success and the long-term potential.
The stages of PPI process

- **Type of Subsidy:** It is a *co-funded project (EU & National funds)* and the larger amount of funds are paid *after the completion* of the project.

- The *basic procurer* (KEDE) through its scientific advisor team INFOSTRAG translated the needs/challenges to *functional requirements* i.e. the development of a centralized open source system for the production of value-added e-government services.

- **Detailed technical specifications** i.e. installation and modification of an existing platform that was developed in 2004 for the use of local authorities of London (APPLAWS).

- **Type of call:** Open Call

- **Award criteria:** Least Risk, Trust

  A large established Greek IT firm was awarded to implement the project due to its previous experience/domain expertise and financial credibility.
The stages of PPI process

• The basic procurer (KEDE) has **restructured the project team** to include **two knowledge-intensive actors**: an independent research laboratory and a specialized IT micro-firm.

• A **radical redesign** of the project was decided through the consultation by these two key actors and a cooperative **dialogue** btw. these two key actors, KEDE and the prime contractor.

  ➢ This redesign implied much **less detailed technical specifications** as it consisted in the development of a **completely new** and more complex **platform** based on a **modular architecture** (SOA).
The stages of PPI process

- The project’s redesign raised substantially the need of specialized software providers’ (subcontractors) participation for the development of the various components (sub-systems) of the platform.
- During the implementation of the project, some of the specialized suppliers withdrew from the project due to the inconsistencies of the financial flux and/or their limited capacity to meet project technical requirements.
- Finally, six key actors have been disambiguated in the project.
Result of the procurement process

- **Partial Completion**: Crucial delay of funding
  - **Product development** (LGAF software platform) & **Delivery** to the purchasing agency (KEDE)
  - The LGAF platform **has not been put in operation yet** as KEDE and the prime contractor have to cooperate with the **municipalities** in order to:
    - integrate their **legacy software systems** with the platform and
    - carry out the necessary preparatory **organizational work** (registration/modeling of data and internal processes) for the production of e-government services.

Currently, there is being made an **attempt of pilot use** in one municipality.
Obstacles for Success

• Demand
  – Basic Procurer (KEDE)
    • **Although certain policy initiatives** for ICTs adoption and usage at the local government level have been developed
    • **Not an “intelligent customer”:** Lack of the human resources required to monitor the development and implementation of such an innovative project
    • **Insufficient supplementary instruments** (awareness of local government leaders, training and enhancement of local human resource, other incentives etc.)
    • **Low institutional power** to enforce specific e-government solutions
  – End-Users (Municipalities)
    • In general, **low quality of demand**
Obstacles for Success

• **Radical Redesign** (although it favored innovation substantially!)
  
  – The LGAF project incorporated new core design characteristics **without the required rearrangements** that these new core aspects demanded (e.g. significant increase of funding, reformulation of deliverables’ objectives etc.)
  
  – Strong enhancement of its **R&D character**. Need for:
    
    • More **flexible & stable funding**
    
    • **Smaller range of services**: Higher possibility for in-depth testing
Obstacles for Success

• Supply
  – Prime Contractor
    • Lack of the required technical capacity to fully understand the essence of the different platform components and in turn to orchestrate the specialized developers responsible for their creation.
    • Insufficient project coordination in terms both of technical and project management.
    • Inherent problem of the Greek ICT ecosystem where large firms usually act more as “box-movers” and much less as creators or facilitators of innovative activities.
Type of procurement

• PPI – Innovation Characteristics:
  – follow the new rationale of e-government services development that EU strategy promotes (European Commission, 2010)
  – Modular architecture (SOA) of the whole system
  – use of Open Source Software (OSS)
    ➢ Subcontracting opportunities for small knowledge-intensive firms
• Direct procurement with aspects of catalytic procurement
• Adaptive procurement
  – Significant Incremental Innovation: Combination of various state-of-the-art technologies (sub-systems) for the development of a completely new integrated system.
Intended Consequences

• Development of an **innovative platform** of high reusability and transferability due to its design characteristics (SOA, OSS).
Unintended Consequences

• Negative
  – **Delay and Partial Completion** (no provision of services yet) of the project
  – **Negative financial impacts** to small/micro actors (firms and research laboratories)

• Positive
  – **Creation of a knowledge network** – collaborative ecosystem, **technological opportunities** for knowledge-intensive firms
Long-term Potential

• High Reusability
  – Utilization of the LGAF platform by more (ideally total of) municipalities
  – Creation of additional services
• High Transferability
  – Many opportunities for transferability of the accumulated technological and organizational knowledge to other individual public entities or group of entities (ministries, regional authorities, hospitals, courts, public utilities etc.) and large private firms
• A step for cross-border services
  • Possibility of interconnection and interoperability of the LGAF platform (or other similar potential platforms) with relative platforms of other EU countries for the provision of cross-border services
Long-term Potential

• **Customers** (public/private sector) of IT and e-government solutions
  – **Productivity** increase of public and private sector
  – Improvement of the **delivered public services** to citizens/businesses.

• **Suppliers** (IT sector) of IT and e-government solutions
  – Enhancement of **knowledge capital, innovativeness and competitiveness** of IT firms giving them an opportunity to increase their **export activities**.
Some policy implications

– The proposed (modular) architecture of the European Interoperability Framework (EIF) provides opportunities for knowledge-intensive entrepreneurship and should be promoted more intensely.

– Formulation of policies and practices that are in favor of OSS but in the same time consider efficiency issues.

– A Strategy regarding PPI for e-government services should consist of two main stages (crucial role of appropriate risk management and mitigation):
  
  • Pre-commercial (PCP)
    – Pilot R&D projects
    – A limited number of potential users
    – In-depth testing of the product (services)
    – Knowledge exploration
  
  • Commercial (PPI)
    – Complementary instruments
    – Institutional measures
    – Flexible business models (Public Private Partnerships, Framework Agreements)
    – Knowledge exploitation