Setback and Remedy of Local e-Government Projects: A Case Study from Egypt

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Introduction and Background

- E-government programs are being carried out in a large number of developed and developing countries.
- In developing countries only 15% successful, (35%) total failure, (50%) partial failure [10].
- Few studies, especially in developing countries, focus on the impacts, long term sustainability, and their success and failure factors.
Egypt e-Gov

- 2001
- Programs:
  - e-government legislative and technical standards infrastructure
  - Government services Modernization:
    - e-Gov services delivery
    - Local government development
  - Enterprise Resource Planning (Accounting, Stock Control, Personnel,…)
  - Integration of national databases.
  - Institutional Development
Egypt Local Gov

- 1 Million sq. km / 5%
- unitary country
  - 29 governorates
  - cities and districts.

- Local governments:
  - central based on rules, regulations and legal requirements
  - Administrative autonomy
  - different governorates might be organized slightly different

- Municipal depts. logically divided into:
  - top management,
  - internal services,
  - external services,
  - and administrative departments
Egypt Local Gov Investment Departments

- Exist at the governorate level.
- Functions are:
  - preparing studies to promote investment in the governorate,
  - ensuring that investments projects are in the proper development track for the community
  - approving investment projects proposed by investors,
  - allocating the required lands to projects,
  - tracking ongoing projects to ensure they abide by their original set targets and rules.
Case Governorates Features

- Matrouh and South Sinai (AL-Tor)
- Sparse governorates, vast desert lands
- Frontier-line /extended coasts.
- The main investments are in tourism, local and international
- Informal land appropriation by local Bedouins (nomads).
- Primitive IT infrastructure
- Main authorities concern:
  - develop the basic region infrastructure, including roads, water, sewage,
  - health and educational services.

<table>
<thead>
<tr>
<th></th>
<th>Matrouh</th>
<th>South Sinai</th>
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<tbody>
<tr>
<td>Population (thousands)</td>
<td>323,381</td>
<td>150,088</td>
</tr>
<tr>
<td>Area (1000km2)</td>
<td>166,563</td>
<td>31,272</td>
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<tr>
<td>No. of phone centrals</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>No. of post offices</td>
<td>37</td>
<td>94</td>
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<tr>
<td>Illiteracy %</td>
<td>26.2</td>
<td>10.1</td>
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e-Gov Projects

- Governorates web portals for the.
- Citizen relationship management (CRM/Complains) systems.
- Smart Service Centers:
  - Citizens (Municipal level)
  - Investors (Governorate level)
Investors Centers

- Re-designed service environment
  - Layout
  - Procedures
  - Timing

- Computerized system to assist the local authorities plan, assign, and manage different investment projects on the governorate level:
  - GIS
  - Workflow (service and project tracking)
  - DSS
Partnership/Intervention Model

- Governorate management and staff: *ownership and operation*
- IT contractor: *outsourced, S/W development, and deployment*
- Ministry of State for Administrative Development (MSAD): *Initiator, ICT and management expert, funding*
Case Analysis

- **Objective:**
  
  *To draw general lessons useful for planning future successful implementation of similar projects*

- **Type**
  - Qualitative:
    - detailed semi-structured interviews with stakeholders (All 8)
  - Comparative: the two sites of the project
Types of failure

- **Project failure**: the project does not meet the specification agreed upon, including the functional requirements, budget, or completion deadline;
- **System failure**: the system does not work properly, including expected performance, not being used in the way intended, or used as intended but does not deliver the expected benefits, or
- **User failure**: the system is not used in the face of user resistance because of such things as recalcitrance, lack of training and ability of staff, and the complexity of the new system

[Goldfinch]
Preliminary Findings

Matrouh

- Originally functional and remained so for several months.
- System went out of operation until new officials of Matrouh collaborated with MSAD to bring it back to life.
- can be classified as a ‘user failure’.
- technology is not the immediate reason of the setback: the staff and top management can be the main reason.

Al-Tor

- Successful as it is, after more than one year,
- Still running under the same management that requested and established it
- Driving force still exists and drives the staff to properly manage the system to avoid failures.
Theoretical Models

- Design-reality gaps
  [Heeks],
- Challenges for e-government initiatives
  [Gil-García, J. and Pardo, T],
- e-Projects challenges and barriers
  [Al-Rashidi, H.]
- ITPOSMO model
  [Heeks]
Adopted Model

- 7 Dimension ITPOSMO [Heeks]
  - Information;
  - Technology;
  - Processes;
  - Objectives, Values, and Motivation;
  - Staffing and Skills;
  - Management and Structures;
  - Other Resources (money and time).
Findings: Information

- Information content quality:
  - Input availability, accuracy, and quality of data to be fed to the system
  - Output nature and quality

- Inputs:
  - Geographic: Maps available
  - Administration (Lands Allocated and tracking): Available

- Outputs
  - accurate and up-to-date information to all users and beneficiaries; administrative staff, decision makers, and citizens (investors). The developed system supports different involved stakeholders.

- Al-Tor Success, Matrouh Failure!
Findings: Technology

- Sufficient hardware and software
- Completely provided by MSAD
- Al-Tor Hardware and Software well maintained
- Matrouh, hardware and software deteriorated with the lack of maintenance and the equipment being vulnerable to malicious media as well as the lack of technology management software

- **Success factor** in Al-Tor, as it was originally in Matrouh.
- the technology factors can be considered as a **failure factor** in Matrouh.
Findings: Processes

- Alignment and integration between the system and existing/new processes

- The developed information system was designed to organize the investment process and make it faster, more accurate, and transparent.

- The system allows the staff and decision makers to be properly and instantaneously informed about the investment projects

- The process factor is considered a **success factor** in both sites
Findings: Objectives, Values, and Motivation

- The values of the local community might be in contradiction with project objectives.
- In Local Bedouins tradition, the government is not an owner of the land generating friction with government and investors on the other.
- So community values are considered a failure factor.
- Staff have individual interests in concealing information so as to acquire personal benefits and/or power (corruption).
- The discrepancy between staff values and organization values is considered to be a failure factor.
Findings: Staffing and Skills

- MSAD initially provided employees with sufficient training
- Staff believed ICT would lose them their jobs
- Lack of real IT professionals to provide support
- Trained staff was transferred to other functions without actually relaying the knowledge to the following teams

- The people factor in Matrouh is considered a failure factor
Findings: Management and Structures

- Top municipal officials are appointed by the central government.
- Usually, in border-governorates, the officials are ex-military personnel whose main concern is to maintain order and to settle any conflict with the tribal traditions.
- The change of top management involves lack of hand-over of the administration and also involves a change of vision.
- The new top management is usually interested in demonstrating his “own deeds”.
- The improper hand-over between managements is definitely the key failure factor.
Findings: Other Resources

- Unfortunately, in less educated communities, community representatives perceive their role as providing individual services to their supporters, irrespective of the legitimacy of these services or its impact on the entire community.
- The lack of community education and enlightenment is definitely a failure factor.
Lessons Learned - 1

- The project in both sites has great initial potential success.
- The strong political and top management support is a critical factor in successfully introducing IT solutions in public organizations.
- Although the system has been well received by all levels of local government in Matrouh, this example reveals that political support should never replace rational strategic planning.
- Successful deployment of IT solutions relies, among other factors, on the presence of clear IT strategic goals and on the efficient integration of IT into organizational development.
Lessons Learned - 2

- To minimize the effect of top management change, these systems must be implemented as parts of a well defined information strategy of the local government.

- Proper training plays an important role in the success of ICT projects in local governments. However, two related factors must be given higher priority to guarantee the sustainability:
  - availability of specialized personnel for IT support
  - establishing and maintaining in-action policies for peer-to-peer (coworkers) training and knowledge transfer.

- ICT solutions must be integrated within the work of employees in a way that makes it inevitable to complete their work without using the systems.
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Thank you ...

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