

# E-Governance Initiative in Sri Lankan Public Service Delivery

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**Abstract** — This paper takes into account the challenges and issues involved in transforming the delivery of public service from a conventional paper based style towards IT based digital system. While the change may be welcome and necessary in the wake of present days needs; executing the transition may not be all that simple and easy to come. This paper brings forth the experience gathered by authors through their practical involvement on the ground in a project that involved bringing IT based systems into important public service routines. The paper examines horizontal and vertical barriers across the hierarchical organizational structure that would require holistic as well integrative customization of the transformation process.

**Keywords**— Public Service Delivery, E-governance, IT, Process Management, Process Transformation

## I. INTRODUCTION

Public service delivery is main rationale for the existence of any popularly elected government. While evolution can come in phases and take natural transition over a long period of time, some changes would require a holistic and quick transition over a relatively shorter period. It is especially relevant when the change is technical in nature and public service handlers are not accustomed to too much technical environment. The transition process will need to ensure that the organizational entity is able to cope with the ensuing change without unnecessarily shocking the stakeholders involved. A schematic transition regime will be needed throughout the planning as well execution phases of the project in order to make a smooth and as painless as possible a transition.

In this article we outline the organizational strategy needed during the transformation of public service delivery at a large public service department or a government entity. The paper also recommends strategy to cope with the requirements of ensuing change. The project was initiated as a university to society initiative by involving university transition teams comprising of academicians and researchers from management and information technology departments. The team assumed the task of attempting to devise and install

a change management regime through various phases of the transition from present state to a full fledged e-pensions state at department of pensions of Sri Lanka in collaboration with Information and Communication Technology Agency (ICTA) of Sri Lanka. [7]

## II. PUBLIC SERVICE DELIVERY IN PERSPECTIVE

Bringing changes into public service delivery means dealing with a situation where the known environment is changed into largely unknown environment. Under such circumstances, the general principles or theories governing above aspects alone can not create a successful transformation. A closer evaluation of the proposed change design should be carried out. To carry out the transformation process a customized approach towards public service delivery will be needed. It will be more important in the context of large and hierarchical organizations like large public service departments, as is in the case of department of pensions of Sri Lanka. [7]

Macredie & Sandom (1999) agree that, “an improvisational perspective may be useful for hierarchical organizations which introduce new technology as the local improvisations which can occur may be leveraged for advantage.” As pensions system in Sri Lanka is handled by an organization that is a hierarchical organization, it seems that customization would be imperative. [4]

Public service requirements will bear an important influence upon the scope and design of transition plans; resultantly there would be dissimilarities in the transition paradigm between developing and developed countries. It is due to the reason that in developing countries the awareness and desire for the change may be significantly lacking. As our paper deals with the transformation, of public service in a developing country, caused by introduction of information technology infrastructure; hence we need to understand the dynamics of that transition in this perspective. Dadashzadeh (2002) referred to possible pitfalls and triumphs involved when implementing IT regimes into the structure of a developing country. [5] He provided interesting insights and strategies to allow a smooth adaptation of information technologies in developing countries.

Also, the information technology cannot be the only focus of all design and management strategies, as there would be many other important factors like people, culture, customs and organizational environment. These factors need to be taken into consideration in addition to technology related issues. Jorgensen et al (2008) found that achieving project success does not depend primarily on technology rather the success depends largely on people. Lastly, the change cannot be successful without a complete acceptance by employees at all levels of any organization. [2] Laclair & Rao (2002) stressed that “managing change is the responsibility of everyone in the corporation - from senior managers on down” it. [3]

### III. RESEARCH OBJECTIVES & METHODOLOGY

As mentioned in the introduction, the project covered by this paper was initiated as a university to society initiative involving university teams comprising of academicians and researcher from management and information technology departments. So, the paper brings forth the lessons learned from practical involvement of the researchers into the project bearing greater impact on the public service delivery capabilities of the department undergoing the transformation.

Our findings and analysis is based on field survey and interviews of numerous departmental authorities from top to bottom in the departments of pensions. The survey also covered Information and Communication Technology Agency of Sri Lanka (ICTA) and various other peripheral departments and agencies of the government of Sri Lanka.

The project design and development was carried out at the university team level with involvement by various professionals from the industry that have relevant experience in handling the information technology related transformation process at public service delivery departments in various developed as well as developing countries.

In this case the transformation meant launching an e-pensions project that spans over a number of processes to be executed within the department of pensions in order to manage the information technology system installation, training & work reassignments, enhancements, updates, incremental fixes and patches to pensions systems, which also included following requirements on technical side:

- ✧ System related infrastructural changes (servers, cabling, routers, firewalls, etc.)
- ✧ System upgrades (applications, operating systems, databases and other software)
- ✧ Employees’ roles ascertainment, and possible revisions and training
- ✧ System functionality assessment
- ✧ Apparatus Establishment (Data Integrity, Security and conformance to privacy policy etc.)
- ✧ It is imperative for a stable, reliable and efficient organizational environments require that implementation of changes be predictable and repeatable.

- ✧ Finally the transformation should follow a controlled trajectory and process that is defined, monitored and enforced.

The involvement went beyond one time field involvement; rather later transformation program was designed and finalized by continual discussion and involvement by the program vendors and university team. The survey coverage spanned across the organization, both vertically as well as horizontally.

### IV. CUSTOMIZATION AND TRANSFORMATION OF PUBLIC SERVICE DELIVERY

In situations like this, it is important to customize the whole transformation process due to peculiar circumstances of the entity undergoing the transformation. Following were found to be the important considerations before designing a customized approach to the transformation.

1. Public service delivery requirements of the pensions business drive the need for a high degree of system uptime (availability)
2. Regulatory requirements such as e-pensions manuals (including regulations and parameters set by parliament and other government bodies) drive the need for controls to ensure the confidentiality and integrity of information
3. Service delivery as well organizational structure demand establishment of a stable and managed environment of a digital pensions department.
4. Environmental stability would require that changes be implemented in a predictable and repeatable manner
5. Personnel responsible for implementing the transformation must follow a controlled process that is defined, monitored and enforced in tandem with guidelines laid down by the change management team after approval by relevant authorities
6. It would be important to make sure that the preventative controls (segregation of duties) and detective controls (supervisory) in the public service delivery are put in place in combination.
7. It will be important to understand system specifications and deployment status
8. We need to identify and train information technology staff to deliver new capabilities specified by the new e-pensions system
9. Reallocate information technology staff resources needed to “put out fires”
10. To stay on schedule, it will be important to ensure that less time is spent on unplanned work
11. As a corollary to earlier section, less system downtime will have to be ensured
12. Ability to install critical patches with minimal disruption will need to be ensured.
13. Preparedness to face contingency situations will be critical for crisis management.

Customization in this case meant both vertical as well horizontal customizations. Vertical customization meant a top-down role redefinition for various organizational officers and entities. Vertical customization in necessitated by both

behavioural as well as capability realities. It was found that certain persons and position were more open and as well as technically ready to adapt and assist in the transformation process.

Dissimilarities in attitude as well as ability towards adapting IT based service delivery are natural in old and large scale public service organizations. Such organizations evolve over a long period of time where human resource is developed and trained to carry out organizational roles and responsibilities in a traditional and hierarchical manner. In this way both training and roles are designed to perpetuate the *status quo*. Customization would allow piecemeal treatment of the *status quo* and would permit a peaceful transformation without causing unnecessary upheaval and unrest at the receiving end within the organization. Similarly, horizontal customization would be necessary to allow a parallel system adaptation without creating job confusion and routine service delivery disruption. Figure 1 shows vertical as well horizontal structure of the organization. Breaking through the vertical barriers, while keeping the hierarchical structure intact, would require a holistically designed customization approach towards process transformation. It may be noted that barriers are stronger at middle to lower levels of organization, meaning that middle level operators are more position and *status quo* conscious. Lower level of barriers between top tiers and middle level may be due to better education and structural understanding. It may also be noted that lower levels are more polarized, and such situations require integrative customization.

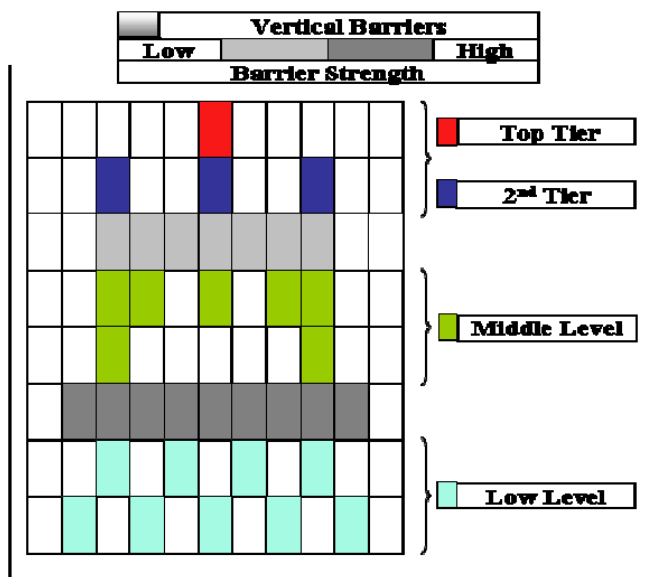


Figure 1. Organizational Polarization & Resistance

## V. TRANSFORMATION REGIME FOR PUBLIC SERVICE DELIVERY

Public service delivery transformation at the department of pensions necessitated a phased out strategy; as normal public service cannot be terminated even for a single day due to the scale and nature of the pensions business. However,

running full scale transformation without a prior test run could put the entire operations at jeopardy and cause unease and discomfort to a large number of pensioners. Hence, a pilot run was carried out before a full scale implementation of the e-pensions regime and accompanying transition management regime. In this case, system vendors agreed to go ahead in a phased out manner, by installing a test run on 3 district secretariats and then expanding it to entire department. So, as transformation management team, we were able to design and suggest transformation regime to tag along the vendors' timeline. The approach helped conceive the transition regime to get into motion without hampering any of the departmental operations or the installation timeframe of the information technology infrastructure needed for e-pensions project. The timeline also ensured that all organizational and personnel readiness was in place as and when it was needed, neither earlier nor later.

## VI. THE TRANSFORMATION TO E-GOVERNANCE

In this section we explain the phases and scope of the program that would bring readiness and acceptance for e-governance structure after going through the transformation process.

### A. SCOPE & PHASES

While carrying out the transformation process in the e-pensions project, we found ourselves involved in understanding and elaborating on the following important points.

- i. What exactly the transformation would mean for all the stakeholders
- ii. The vision and fallacies about the change that would entail the transformation
- iii. Describing the phases and details of the change
- iv. Who is going to control the transformation process
- v. Recognizing resistance to the transformation process
- vi. What actions can change resistance to accepting the change
- vii. Understanding losses, if any, resulting from the change
- viii. Defining transition strategies through different phases
- ix. How to manage each phase
- x. Communication handling during and after the transition
- xi. Incorporating rules for stifling innovation and reform within the change process

### B. READINESS & ACCEPTANCE

Moving on to next phase of the proposed transition, our involvement with potential change partners required laying down a strategic involvement framework for lateral implementation. The strategic involvement framework comprised of a comprehensive training and advisory regime to prepare the department of pensions for forthcoming change. The training and advisory regime proposed covering first two

stages as depicted in the Figure 2. The rolling out of the strategic involvement framework followed the implementation of the pilot phase. We would call this as digital adaptation framework (DAF).

As explained in the Figure 2, the digital DAF would move through three distinctly identifiable stages, with three clearly laid out outcomes expected. The 3 stages of the DAF are as following:

- ✧ Explanation Stage,
- ✧ IT Training Stage and
- ✧ Implementation Stage.

As we move through from stage one to two and towards the third stage, the idea of new system and processes becomes clearer and clearer to the stakeholders. It prepares initially resisting stakeholders to understand and then accept the change (see Figure 2). Once we are there, the system readiness verification test line is within reach and we can move on with full scale implementation and post implementation evaluative procedures.

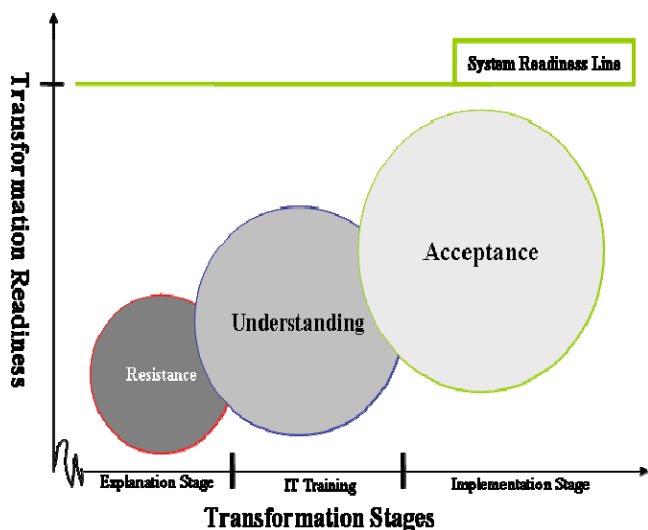


Figure 2. E-governance Transformation Readiness Across Project Stages

## VII. PUBLIC SERVICE DELIVERY & E-GOVERNANCE

In the final analysis, we put together the resistant elements, the concerns that need to be addressed, the challenges and the prerequisites of a successful transition in the light of some important physical and psychological ground facts.

### A. THE RESISTANCE & CONCERNS

In our observations during the field survey, we identified various potential resistance points as follows;

1. Divergence between both old and young employees in accepting the change.
2. Divergence between the urban and rural (outstation Divisional Secretariats and/or Government Departments) working cultures after the change.

3. Divergence in types of incentives to motivate workers to accept the change.
4. Divergence between the paper-based culture and digital culture in the entire organization.
5. General scepticism on the suitability of this project.
6. A feeling that the new system will automatically evolve.
7. Psychological perception of loss of power/benefits
8. Feeling of lack of participation by certain employees.
9. The potential danger of aggravating the above resistance/conflicts by any possible initial state of deployment that does not address the core requirements for smooth/stable system operation. (Here, the initial system condition encompasses hardware, software, working environment, and work force setup etc.)

It was obvious that higher the tier in the organizational hierarchy, higher was the level of understanding for proposed digital pensions system. This may be due to the education and training level, which is better at the middle to higher levels of the organization undergoing the transition. But that also meant that at middle to lower levels the understanding towards the transformation process was at lowest levels and would require greater work and attention.

### B. THE CHALLENGES & READINESS PREREQUISITES

In an across the board survey of the stakeholders, both employees and customers, we found that while middle to lower levels were considered most important for effective service delivery, the resistance to change was also found highest at these levels (see Figure 3). At a scale of 0 to 100, change resistance was closer to 75 at middle levels and 45 at lower organizational levels; top levels were, however, more open to accept the change. This allows identifying and designating top tier functionaries as change promoter and leaders. The resistance levels can also be explained by perceived loss of position or role reassignment; which was not considered a major concern at the top organizational levels due to clearly defined organizational structure and service rules.. We identified the following as the foremost challenges that needed additional attention both during the design and execution of the e-governance project. Amongst key challenges change management team concentrated on human resource related challenges such as:

1. Breaking the polarized working style associated with bureaucracies and functional thinking, acting on self interest
2. Developing team based work groups based on interactions and greater communication.

In this setting, fears related to job security among older and rural officers at middle to lower level come to surface because the electronic system was perceived to suit young, urban officers. This conflict can also sometimes appears in large public service organization especially at higher levels with

perceived loss of psychological and real power associated with computerization of operations. But clear service rules and organizational structure between middle and top tiers dampened down these concerns in this particular case.

However, normally a flatter organization style would require empowering middle and lower ranked officers with greater involvement in making decisions that are going to affect their work routines and roles.

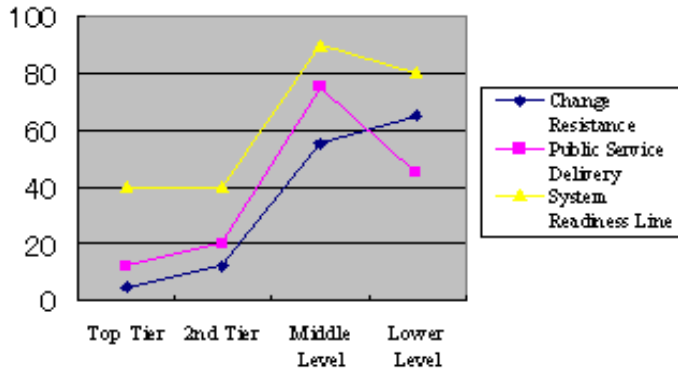


Figure 3. Change Resistance & Public Service Delivery at Different Organizational Levels

We also identified the need to conduct a system readiness verification test, requiring change acceptance line (yellow line in Figure 3) be reached before the full fledged deployment of e-pensions system. The potential problems in the initial deployment stage may amplify the human resource issues mentioned above.

### VIII. CONCLUSIONS

Transformation process at public service departments that carry out unstoppable public services requires a great deal of environmental evaluation and customization. Through our experience we learnt a number of important lessons that can be equally useful for other organizations and practitioners facing similar situations. We propose transition training requirements with very clear objectives and timelines inbuilt within the transformation strategy related to e-governance in

public service sectors of the government of Sri Lanka. It would be a primary requirement to strengthen the human resources to retrain, introduce team-based work groups and re-evaluate the compensation and incentive system. Vertical and horizontal communication among all stakeholders would be another pre-requisite of the any such strategic initiative. We designed the program for transformation which included re-training officers, based on their new job roles, with greater concern for older and rural officers in form of e-governance workshops. Based on our findings, we recommended design of the transformation regime that would allow the participants a forum to discuss merits and demerits of the new system and make their proposals for improvements. This should allow espousing benefits of the information technology based system. In situations like the department of pensions of Sri Lanka, we proposed identifying directors and other people with authority and responsibility to be nominated as leaders/agents of positive change and use small wins strategy to mobilize other officers. Finally, we urge that in situations like this, it important to understand the modifications required for the new e-pensions system at the initial state of deployment stage as well as in its evolution towards a stable state.

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