

Proceedings of the FICCI-PMI Symposium on Project Management Practices 2015

“Project Management – The impetus for Make in India”

March 10, 2015

Federation House, New Delhi



Organizers

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Project Management Institute (PMI) India

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Table of Contents

ORGANIZER’S NOTE	4
SCIENTIFIC COMMITTEE.....	5
BEST PRESENTATION AWARD WINNERS	5
SESSION PLAN.....	7
SUMMARY OF PRESENTATIONS.....	9
SESSION I - PROJECT MONITORING AND FAST TRACKING	11
EMPOWERED PROJECT MANAGEMENT OFFICE- THE SUCCESS MANTRA FOR E-GOVERNANCE PROJECTS	12
CRISIS MANAGEMENT: WHAT WORKS?	16
DELIVERY EXCELLENCE THROUGH CONTEMPORARY IT PMO PRACTICES.....	20
DE-BOTTLENECK CHANGE INITIATIVE(S) - EVOLVE PMOS INTO “TRANSFORMATION MANAGEMENT OFFICES”	25
SESSION II - PROJECT RISK MANAGEMENT AND STAKEHOLDER ENGAGEMENT	31
GETTING INTERNAL STAKEHOLDERS ON BOARD: ALIGNING EXPECTATIONS TO THE PROGRAM OUTCOMES	32
ARE STAKEHOLDERS AT RISK?	36
STRATEGIES FOR SUCCESSFUL SOFTWARE DEVELOPMENT: RISK MANAGEMENT IN LARGE PROJECTS....	39
SESSION III - TECHNICAL TOOLS & TRAININGS ON PROJECT MANAGEMENT	46
BUILDING PROJECT MANAGEMENT COMPETENCIES: A GOVT. OF KARNATAKA- PMI BANGALORE INDIA CHAPTER INITIATIVE	47
PROJECT SUSTAINABILITY MANAGEMENT THROUGH STAKEHOLDER ENGAGEMENT AND CAPACITY DEVELOPMENT: THE CASE OF JALSWARAJYA PROJECT	50
CLOUD COMPUTING FOR AGILITY IN GOVERNMENT	55
ABOUT THE ORGANIZER-FICCI.....	60
ABOUT THE ORGANIZER-PMI	61
PARTICIPATING ORGANISATIONS	62

Organizer's Note

While project management practices do vary with size and complexity of the project, certain basic principles will hold true for ensuring success of most large projects. Considering the fact that time and cost overruns, and project failures are such a common occurrence in contemporary India, there is an urgent need to understand the principles and practices behind successful projects, and develop sound project management practices for effective project delivery.

With this background, FICCI in partnership with PMI India organized a Symposium on Project Management Practices on March 10, 2015 at FICCI, New Delhi. The Symposium focused at facilitating exchange of ideas and showcasing various good practices on Project Management and was attended by over 80 participants from government, industry, and academia.

With a guiding theme of “*Project Management – The impetus for Make in India*”, contributions for were invited under the following focus areas:

- Role of Project Management Office (PMO) in removing bottlenecks for stalled projects
- Institutionalizing Crisis Resolution processes for large programs
- Building Project Management Capabilities in Government
- Quality of Stakeholder Engagement and Risk Management imperatives in large projects
- Ensuring Project Management Expertise of executing agencies and sub-contractors
- Project Management in the new age of technology

Over 30 contributions were received through the call for contributions campaign out of which 9* were finally selected for presentation. Presenting authors were invited to compete for best presentation awards in various categories aligned with the objectives of the Symposium.

Presentations and discussions during the technical sessions ranged from setting institutional mechanisms for monitoring and fast tracking projects especially large and complex ones, tools/techniques and change management actions for stakeholder analysis and on-boarding, and for project risk management, and building Project Management capabilities at the community level to ensure project sustainability, and leveraging technology for project execution and delivery.

Symposium also witnessed the launch of the FICCI-PMI recommendations on issues towards leveraging the science and art of project management for Make in India. According to the recommendations report, there are top three critical areas which need attention in order to create a conducive environment for the success of programs like ‘Make in India’. The areas are: Quality of Stakeholder Engagement and Risk Management in large projects, Nodal Agency role in monitoring and supporting project execution, and Training and Tools for enhancing organisational project management capabilities, especially in government.

* This document contains description of 10 contributions. Contribution titled “De-Bottleneck Change Initiative(s) - Evolve PMOs into Transformation Management Offices” authored by Gaurav Sapra was not presented during the conference due to prior commitments of the author.

Scientific Committee

Chair: A. Didar Singh, Secretary General, FICCI

Co-Chair: Raj Kalady, Managing Director, PMI India

Member Secretary: Sanjeevan Bajaj, CEO, FICCI Quality Forum

Member: Galahad Franklin, Director, Microsoft

Best Presentation Award Winners

1. Supriyo Dasgupta, Bharti Airtel Limited
“Delivery Excellence through Contemporary IT PMO Practices”
2. Sanjukta Mandal, Somdatta Bannerjee, Sudipto Roy, Ananda Chakraborty, and Anand Prasad, Cognizant Technology Solutions India Pvt. Ltd
"Strategies for Successful Software Development: Risk Management in Large Projects”
3. Dr. Mona N Shah and Prof Ramakrishna Nallathiga, National Institute of Construction Management and Research, Pune
“Project Sustainability Management through Stakeholder Engagement and Capacity Development: The Case of Jalswarajya Project”

Session Plan

Session Plan

Session I - Project Monitoring and Fast Tracking

Empowered Project Management Office- The Success Mantra for E-governance Projects

Crisis Management: What works?

Delivery Excellence through Contemporary IT PMO Practices

Session II - Project Risk Management and Stakeholder Engagement

Getting Internal Stakeholders On board: Aligning expectations to the program outcomes

Are Stakeholders at Risk?

Strategies for Successful Software Development: Risk Management in Large Projects

Session III - Technical Tools and Trainings on Project Management

Building Project Management Competencies: A Govt. of Karnataka- PMI Bangalore India Chapter Initiative

Project Sustainability Management through Stakeholder Engagement and Capacity Development: The Case of Jalswarajya Project

Cloud Computing for Agility in Government – Practitioner's Experience

Summary of Presentations

Summary of Presentations

Empowered Project Management Office- The Success Mantra for E-governance Projects

The paper describes integrated change management interventions undertaken by PMO for revival of a large, stalled E-governance initiative for smooth transformation of existing legacy system, building consensus among all stakeholders, and mitigation of risks while ensuring reduction in processing time along with transparency.

Crisis Management: What works?

The paper describes interventions to deal with crisis situation in case of a Mega Insurance Customer, setting up of a Crisis Management Team, understanding different stages of Crisis Management like Pre-Crisis, Warning, Crisis, Recovery and Post Crisis, designing and implementing proactive strategies determined by thorough analysis of the various stages of crisis management.

Delivery Excellence through Contemporary IT PMO Practices

The paper describes design and implementation of an agile framework based project management in a large multiple vendor IT transformation project.

De-Bottleneck Change Initiative(s) - Evolve PMOs into “Transformation Management Offices”

The paper describes a real-world case study of a mining company’s complex transformation, wherein, by extending the program management office’s role, the program was put back on track and positioned to achieve sustainable results.

Getting Internal Stakeholders On board: Aligning expectations to the program outcomes

The paper describes change management interventions to resolve conflicts at the level of key stakeholders and ensure impacted user's readiness for migration to a new community IT platform.

Are Stakeholders at Risk?

The paper describes application of BMGI's internal Stakeholder Analysis and Management methodology to two large projects, one for an Indian private sector company in FMCG, IT and Services sector and one for an Indian Public Sector Enterprise producing steel.

Strategies for Successful Software Development: Risk Management in Large Projects

The paper describes implementation of Cognizant's internal framework on Stakeholder Management and Risk Management for a large program to develop an online ordering system for a large fast-food chain.

Building Project Management Competencies: A Govt. of Karnataka- PMI Bangalore India Chapter Initiative

The paper describes customized Training Module on Project Management for Government officers based on functioning of government bodies and the fundamental Project Management Body of Knowledge (PMBOK).

Project Sustainability Management through Stakeholder Engagement and Capacity Development: The Case of Jalswarajya Project

The paper describes a project for community participatory and capacity building initiative to increase household’s access to water supply and sanitation services in rural areas of Maharashtra.

Cloud Computing for Agility in Government

The paper describes development of an e Governance integration platform using cloud computing technologies to improve IT infrastructure provisioning.

Session I

Project Monitoring and Fast Tracking

Session I - Project Monitoring and Fast Tracking

Session Chair:

Mr. Raj Kalady

Managing Director

Project Management Institute (PMI) India

Lack of effective project monitoring is often considered a major cause for time and cost overruns. Hence, reporting and monitoring is necessary for project success. It also helps in risk identification and provides timely guidance and information for decision making.

This session is about institutional mechanisms for monitoring and fast tracking projects, especially large and complex ones, for sensing, preventing and dealing with crisis situations, and for managing large change and transformation projects.

Empowered Project Management Office- The Success Mantra for E-governance Projects

Yogesh Arora and Shilpa Srivastava
Tata Consultancy Services

Category of Submission:

Role of Project Management Office (PMO) in removing bottlenecks for stalled projects

This paper highlights the importance of PMO in handling bottlenecks for all the projects, especially large e-governance projects. This will showcase how effective Project Management can work as an enabler to convert multiple challenges, problems and feedbacks into positive energy and opportunities; become essence of the success of large e-governance initiatives; and make it serve millions of citizen for their benefit as well as contribute towards the growth of the nation at large.

About the Author:

Author's Name: Yogesh Arora¹, Shilpa Srivastava²

Affiliation/Organisation: IT Service Provider

Author's Role in the presented case study: Associated as Members of the Project Team

Capacity in which Author was associated with the case being presented:

1. Program Manager & Business Consultant
2. Observer & Consultant

Activities done by the Author personally:

1. Planning, Executions, Delivery, Tracking
2. Observer and Practitioner

Abstract

Nowadays everyone, especially new governments, are talking about lot of new initiatives, projects, plans, growth in India — enthusiastic and ambitious dream projects such as Digital India, Modernization of various sectors etc. But, at the same time, are we ready for such transformations or will we collapse and get trapped in mismanagement due to our unpreparedness?

As a country, transformation activities are necessary for our survival and growth and are a demand of our time. This is especially true in government sectors where public money is involved and we do have not any scope for failure.

The objective of this paper is to highlight the value and need of Project Management Office (PMO) in large e-commerce projects and show effective and empowered PMO office is more important than many other components of projects. At times, even if we have good resources, technology and finances, we have failed due to

ineffective project management. And, at times, due to empowered and effective project management, we have not only managed successfully but also enabled large transformation initiatives even during uncertainty.

The PMO is not only the essence of any project but takes care of all challenges, bottlenecks and hurdles in any project. This paper showcase the success story of one of the largest e-governance initiatives in India and highlights that learnings from one project must be carried forward into other projects to make them more effective and useful.

PMO is the central point of e-governance projects, which connects all stakeholders and takes care of aspects such as time management, finance management, accountability, and goodwill.

Case Background

This program addressed a need for a Government of India department. In this department, which dealt with document processing, there was a big issue in handling citizen demands, multiple non-integrated legacy system, major backlog and lack of transparency and information for all stakeholders.

In addition, unorganized centers multiplied the already existing problems for citizens as well as Government officials. The processing time was too high and sometime citizens did not have any clue about the status of their submission and requests. Lack of communication and information was another challenge for the citizens and officials. Due to lack of proper appointment and non-automated documentation system, the stakeholders (citizens and other Government officials) were spending a lot of time in processing.

The department needed an integrated system to replace their existing legacy systems. The new system needs to be quick, efficient, easily accessible, and transparent.

The challenges involved were:

- Transformation of existing system without hampering existing BAU
- Satisfying institutional obligations such as act passed by the Parliament of India
- Reduction in processing and turnaround time
- Transparency
- Physical and online accessibility
- Acceptance by government staff, agencies, and other stakeholders
- Acceptance by general public
- Integration of multiple legacy systems
- Completion of technical and non-technical trainings

- Change management
The mission mode (MPP) project started in India, under the e-governance plan, with clearly defined outcomes and service levels – most of them targeted to streamline and satisfy citizen needs.

Due to public private model (PPP), it was extremely challenging to enable handholding with citizens, government staff and other stakeholders for training and change management during the age of the project.

A well-integrated multilevel approach was used at the starting of this program, which was maintained during all phases of the project starting from Initiation, Preparation, Mobilization and Execution.

All activities were planned and tracked starting from requirement gathering, analysis, development, testing, pilot and final implementation. Special precautions were taken while implementing the changes at all level including training, support, handholding to ensure that the program should not only be implemented but accepted positively by all stakeholders.

The project started off well, and to handle successful execution of the program and avoid any gaps during project execution and to have a proper governance and coordination between different stakeholders acceptance, the program manager strongly felt need for a Project Management Office (PMO) to take the program to delightful execution and completion.

Other areas analyzed by the PMO were Risk management, usability analysis, and multi-stakeholder coordination. All major risks at different stages, which could hamper the program, had been identified well in advance and incorporated in the Master Program Plan. The PMO ensured that these risks were monitored closely and updated regularly. During final deployment and implementation, this risk management helped in ensuring smooth and planned resolution.

In the same way, all stakeholders were identified depending on the different needs and support required for the success of the program. In addition, planning was done to give them the required training and make them part of change management process.

Usability analysis was also planned in the program to understand the reaction of various stakeholder and changes. Based on the results of the analysis, the program was made flexible to ensure that it would be accepted whole heartedly and not just implemented for the sake of implementation.

Since this was the largest and, a unique, e-governance initiative in the country, the expectations from this program were very high. The PMO team ensured proper co-ordination and regular multi- stage periodic reviews with multiple teams (including technical and non-technical groups).

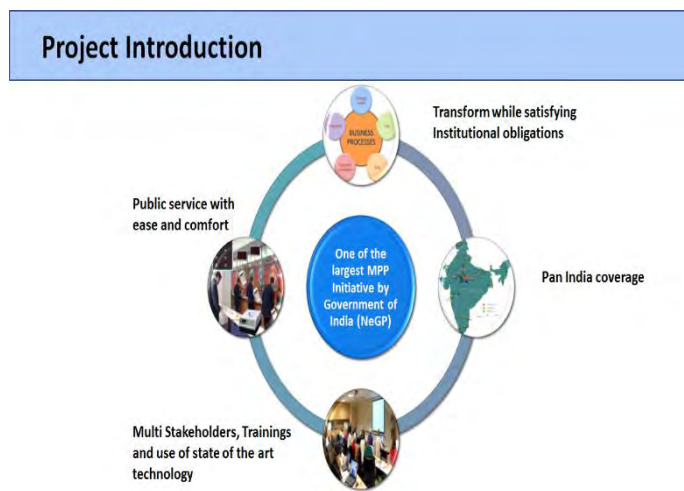


Figure: Project Introduction

Approach Taken

The organisation set up a dedicated PMO for this program. The PMO analyzed the various aspects of program management, during different phases, such as governance, value and benefits management, organisational change management, stakeholder and communication, quality, risks and issues, and resourcing.

Work Done

The scope of the program was very broad including developing the application, designing a new user friendly portal, enabling different levels of processing and approval, setting up Citizen centers, resourcing of front-end staff, implementing the solution in a phased manner across different locations in India, planning, scheduling, creating and conducting trainings for multiple stakeholders at different levels and at different locations, and enabling change management and other technical and non-technical activities. The vast scope of the project required careful planning, management, and monitoring.

The PMO set up a Central Support team, which was a one stop shop for all stakeholders to contact. This enabled professional coordination of all activities and enabled the stakeholders to get the work done within defined timelines. The PMO also ensured that any obstacle during project was addressed well in time and a permanent solution was provided. This avoided repeated instances of the same obstacle and eliminated bottlenecks and hurdles. As a best practice, the PMO adopted the policy of “First Time Right” and used all techniques, expertise and tools to achieve this.

The PMO streamlined communication and reporting for the program. Daily, weekly, and monthly reviews on the progress and implementation of the project were organized at all levels. Timely and accurate

communication across teams all over India played a key role in the success of the program. All streams were routed through one channel to get best maximum coordinated instruction from solutions point of view. Effective and proper reporting management system ensured that activities should happen in a planned way and deviations should be addressed based on merits.

The constant communication and reporting ensured that any deviation in the plan was noticed and addressed swiftly. All deviations were acted upon that with the help of multi-level groups which worked across areas in a coordinated manner.

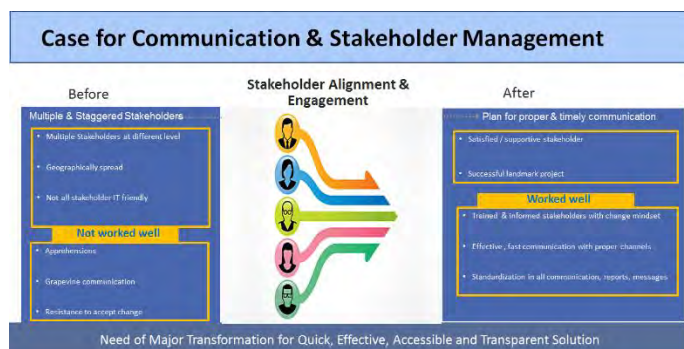


Figure: Communication & Stakeholder Management

In addition, Trainings and Change Management sessions were held at different levels and at different locations for maximum coverage and acceptance of the initiative.

Feedback from all stakeholders was addressed in a positive manner. This level of success is really exemplary for other initiatives, especially for transformation programs.

The above context shows that learnings and work done in this kind of large transformation initiative can be extremely useful for transforming many sectors in India. Few which we can name are – Indian Railways, Transportation, Power Sector, Healthcare, Education, Digital initiatives where lot of coordination, planning, tracking, implementation and operational aspects are involved. The effective and empowered PMO office can play a pivotal role — starting from the inception of the idea of the project to its day to day smooth operation and maintenance and till its completion.

We have seen the kind of integrated approach taken in this project become a landmark for other initiatives, where end-to-end implementation involves humongous amount of activities and involvement of endless stakeholders. Effective Project Management not only integrates various pieces of the large project but also makes it happen for Make in India.

With the help of effective Project Management, projects can be completed successfully and economically. In addition, it has numerous other non-monetary benefits which contribute hugely to the country's growth, GDP and its image. Examples of such benefits are streamlined

activities in the initiatives where millions of citizens saved their time and contributed saved time in other productive activities. This directly led to an increase in their income and contributed to the country's growth and their happiness. At the same time, the productivity of thousands of other officials and stakeholders increased.

What worked/What didn't

- The very well designed and structured plan worked well for the project. Because the project was at a national level, it looked unimaginable. But due to coordinated PMO efforts, proper and timely communication, the plan worked extremely well.
- Flexibility during the project was another aspect that contributed to the success of the project. At the start of this project, there was no leading or role model project that could be emulated. Now, this project sets a major milestone for another E-governance initiative in India. It will also set an example for all government initiatives in coming years with its leading impact and benefits to the nation.
- The creation of a centralized database enabled easier administration, reduced processing time, and enhanced transparency.
- Provision of world-class experience at citizen centers enabled easy acceptance by general public. Non-involvement of external layers or middle men ensured transparency that, in turn, ensured the success of the project.

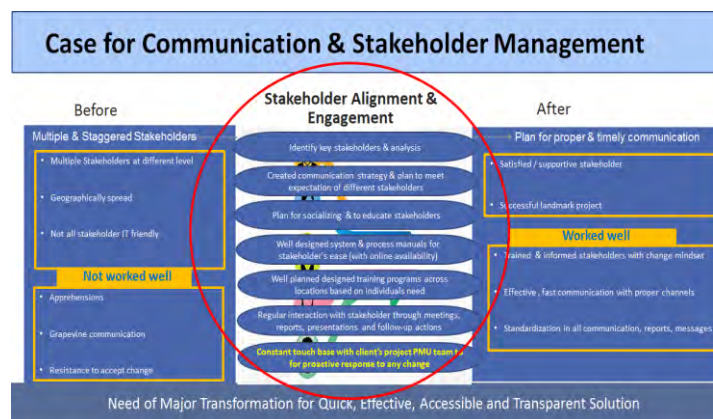
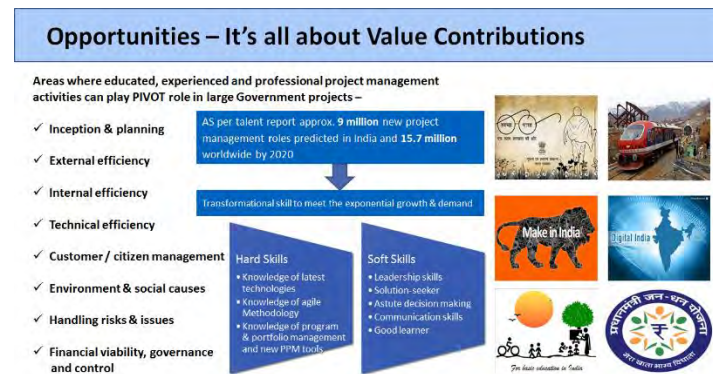


Figure: Communication & Stakeholder Management

Lessons Learnt

- The biggest lesson learnt from the project is that that Private sector or Project Management skills are the need of time for transformation of government sector enterprise through different projects.
- This project gave a major boost to public satisfaction in a transparent manner. A strong and well educated professional PMO is a must for success of any large government project, who can plan, tackle and take corrective action immediately to keep the program's timeline and financials in control.

- This project also highlighted the need of an empowered PMU (Project Management Unit) to kick start and remove bottlenecks for stalled projects in many public sectors in India. Examples are Indian Railways – which is in need of urgent revamp to handle demand and modernization (Reference - Report of the Expert Group for Modernization of Indian Railways), Medical System, Public Distribution System, National Skill Development, Education, Digitalization initiatives and so on.
- Effective Project Management can play a pivotal role in transformation of Indian public sector with the help of private, public players who comes with new ideas & approach. PMO for all stalled and other new projects can not only give tangible benefits like completion of the project on time and within budget but also produce intangible benefits such as increasing the productivity and moral of employees, savings in citizen time, increase in convenience, comfort and more productivity which ultimately result in higher GDP and improved life style of normal citizen. This also pays an important role in changing the image of the country.
- This will not only save a huge amount of taxpayer money, but also will effectively transform the nation's image and way of working.
- As an example, the success of these type of initiatives shows the importance of professional PMO requirement to implement other large transformation initiatives in the country e.g. In Indian railways, PMO team can play a backbone role for its transformation in all the areas starting from safety & security, handling growing demands of passengers and freight, manufacturing divisions and financial management. The effective PMO is the first and foremost stepping stone to make the vision achievable and possible.



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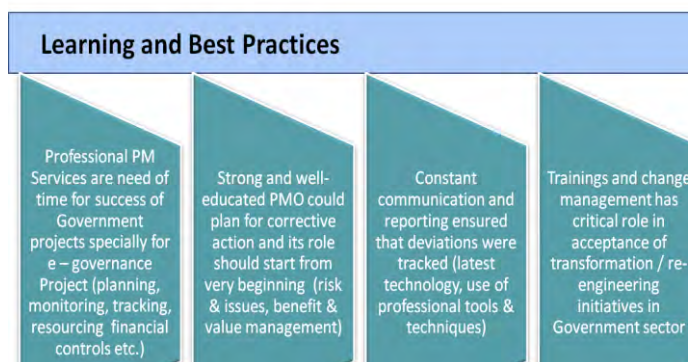


Figure: Communication & Stakeholder Management

Any Other Aspect

- All major initiatives, especially in the Government sector, should start with a strong PMO to ensure successful completion and to meet its inception objectives.
- Effective and efficient PMO office is the insurance for the success of India's various large public organisations working on e-governance initiatives.

Crisis Management: What works?

Paramita Mukerji
Wipro Technologies

Category of Submission:

Institutionalizing Crisis Resolution processes for large programs

This paper describes a crisis that happened in one of the big projects with Wipro Technologies in India and how it was managed well and the crisis brought under control by implementing Crisis Management in the most effective way.

Author's Details:

Author's Name: Paramita Mukerji

Affiliation/Organisation: Wipro Technologies

Author's Role in the presented case study: Part of the task force who mentor & guide the project teams to implement effective project management practices in the projects.

Capacity in which Author was associated with the case being presented: Task Force Member

Activities done by the Author personally: Implementation of Project Management Practices

Abstract

This paper describes a crisis that happened in one of the big projects with Wipro Technologies in India and how it was managed well and the crisis brought under control by implementing Crisis Management in the most effective way. Crisis Management here refers to a framework consisting of well thought through, tried and tested set of best practices. The success of the case lies in timely and effective implementation of Crisis Management.

Every problem or issue in a project is not a crisis. The project team has to understand the difference between a crisis and an issue to be able to manage crisis when it strikes. Valuable project effort, time & resources should be reserved for the crisis and not consumed in day to day problem and issue resolution. Managing an issue is steering the ship out of troubled waters whereas managing crisis is trying to save the ship after it has struck an iceberg.

This focus of this paper is on various aspects of Crisis Management that will help the readers understand the

role of Crisis Management & recovery at an organisation level, understand the difference between Program Level Troubles and Operational Crisis, understand key decision drivers in the Crisis Situation, understand the importance of communication - speed & quality of response, understand the basic principles and steps of crisis recovery planning and last but most important the need for executive support on crisis recovery planning.

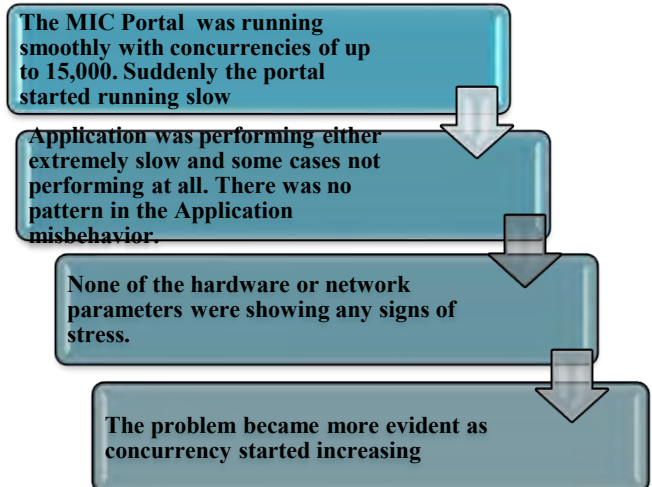
Case background

About The Mega Insurance Customer (MIC) and the MIC IT Project

MIC is one of the largest and reputed social welfare schemes worldwide covering more than 50 million people. Registration and monthly renewals for health insurance and medical benefits are the most important activities involved. This project involves transformation from present manual based processes to IT enabled organisation. Following are the 2 main objectives of the MIC IT project:

- Real-time healthcare and **ERP solutions** at over 2K locations
- **Change management** and training of 40,000+ MIC employees

The Situation – Is it a Crisis?



What was working well suddenly started to fall apart. We did not make any changes in application or infrastructure.

In order to take further steps to bring the situation under control we need to first find out whether the above situation is a crisis or any other operational issue. Let's find out the difference between a Crisis Situation and Issue.

Crisis	Issue
<ul style="list-style-type: none"> • An <u>unforeseen</u> circumstance • Could jeopardize a company's products, services, fiscal situation, and reputation. • An urgency that requires <u>immediate</u> decisions and actions from people involved. • It has negative <u>long-term</u> repercussions • <u>Example</u>: Managing crisis is trying to save the ship after it has struck an iceberg. 	<ul style="list-style-type: none"> ▪ Any out-of-the-ordinary situation (issue) is not a crisis ▪ Don't present any immediate risk to the company's products, services, fiscal situation, and reputation ▪ If issues are not recognized, evaluated and correctly managed, they can become a crisis ▪ <u>Example</u> : Managing an issue

Impacts of the MIC project situation on various stakeholders

Impact on Business Users: In case business users (customer's customer) are not able to use the portal on time (within target dates), there are penalties. There are more than 3.5 Lac registered users.

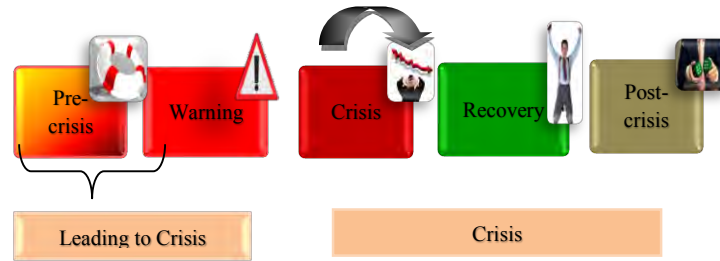
Impact on Customers: In last 60 years, the customer had not faced any issue with the manual processes. If the issue had not been resolved on time, the customer would have to face civil & criminal proceedings. This is apart from loss of revenue.

Vendor: Wipro would have lost the project and got blacklisted. The criminal & civil proceedings against insurer would get transferred to the IT service provider. This incident was also closely monitored by Media; it could have adversely impacted Wipro's image in the industry.

The above reasons led the team to declare the situation as CRISIS and called for an effective Crisis Management operation.

Approach Taken

Stages in Crisis Management



Pre-Crisis

Managing a crisis does not necessarily mean 'waiting for a fire'. In any business environment, anticipating and identifying potential crisis situations and developing a contingency plan for responding to each of them is crucial. Things that are done in Wipro as part of pre-crisis phase are:

- Anticipate and identify potential crisis situations which the project/account could face. Set expectations that despite best of planning, we may still end up with a crisis situation
- Formulate and document the framework for crisis management
- Share this framework with all the internal/external stakeholders and team
- Outline roles and responsibilities of crisis management team
- Confirm the availability of a BCP approved by the customer be aware of how it will be invoked when crisis strikes – assign BCP owner
- Have a communication plan
 - ✓ Mode of communication
 - ✓ Who communicates to whom
 - ✓ Customer communication strategy/approach
 - ✓ Public communication strategy/approach

Some crisis scenarios can be visualized and converted into risk plan. Risk Identification and Risk Planning, DR and BCP are not part of crisis management. These may help avert some crisis but a crisis may still occur. The Crisis Management Plan compliments the emergency response procedures, not replace them.

Warning

A crisis may not always appear suddenly. Many a times there are warning signs which we may ignore. Paying heed to these warning signs surely help avert

a crisis. Crisis management requires actions before a crisis happens. Therefore in Wipro project teams find it very important to heed the early warning signs that can result in a crisis situation.

- All relevant stakeholders were kept informed about the warning signs
- Informed the customer if actions are to be implemented at the customer's end
- The team was prepared to face the Crisis.

Crisis

Assess the damage/situation and declare the crisis. Once crisis is declared, the project team starts work on the below mentioned aspects:

- Putting the Crisis Management team in plan
- Undertake assessment of resources and options
- Involve Human Resources (temporary or permanent)
- Take necessary steps to provide the required logistics
- Take necessary steps to provide the required facilities
- Clearly defined Roles and Responsibilities
- Take necessary steps to act swiftly and communicate immediately
- Put in place the Communication Plan with clear guidelines
- Decide on the mode of communication and controlling information
- Decide on who communicates to whom
- Decide on what strategy and approach to be followed for customer communication
- Decide on what strategy and approach to be followed for public communication in case the crisis is concerned to the public. Also roll out the guidelines for such communications.
- Share accurate status information with the customer
- Reach out to the top management for their involvement and expert opinion during the crisis. Get the required visibility so that the management is aware of the crisis situation and provide the required assistance
- Manage legal requirements

Crisis declared!!

The MIC Project: Crisis Management Team

Separate Crisis Management team formed consisting of technical-functional experts, senior management, legal experts and representation from project team. The CM team members included:

- ✓ Program Manager who was responsible for overseeing the actions of the CM team were senior

seasoned negotiator type Program Manager who are specialized in handling crisis situations

- ✓ Communications coordinator who manage all communications between CM team, management, employees, and the public, including media and government
- ✓ Senior Leader (ADH/VDH/SDH) who were responsible for contacting and managing all interactions between the organisation and key client stakeholders, including steering committee members. They were also responsible to manage internal stakeholders
- ✓ Subject Matter Experts in the field to provide quick resolutions based on their experience
- The project team was shielded from blame game & finger pointing.
- The team was encouraged to think differently/out of box
- All the vendors and principles were involved to understand and diagnose the issue.

Work Done

The MIC Project Crisis: Communication Plan/Strategy

Good communication is the heart of any crisis management plan. Communication reduces tension, demonstrates the corporate commitment to correct the problem and take control of the information flow.

- Single Point of Contact was identified to drive this MIM and ensure timely updates to Top Management (Wipro), Team (Internal) and Customer Management in separate mailers.
- It was ensured that the team comprising of program management, finance and legal to send timely response to customer queries and letters

Recovery

Once Crisis is declared and the Crisis Management team comes into action the team gradually advances towards recovery. Following are some of the practices which helped the team speed up the recovery process and return to BAU (Business As Usual) at the earliest.

- Ensured business continuity despite the crisis and minimum impact to the project
- Acted swiftly
- Thought from different perspectives /out of the box
- Assured stakeholders that recovery is underway

- Resolved the problem and limit the damage
- Invoked clear decision-making guidelines
- Followed the pre-determined roles and responsibilities
- The senior management did not overwhelm the team members working on the crisis resolution.
- Most important: Followed the communication strategy as planned
- ✓ Shared the accurate recovery status with customer, internal stakeholders and top management
- ✓ Ensured transparency to restore confidence in our services
- Managed feelings
- ✓ Assured the customer of our continued support and seek inputs on what we could have done differently to avoid this situation.
- ✓ Continued to maintain transparency.
- ✓ Planned actions/interactions to restore trust and credibility.

Post Crisis

There is a lot of learning and experience gain which happened during the course of the above events. When the Crisis is over the team invested time in:

- Evaluation of effect – could this have been avoided had we chosen to act earlier?
- Long term solution -- Corrective and preventive actions to prevent recurrence
- Business recovery actions to restore public confidence in the brand/company/service provider
- Capture the learning for future reference
- ‘Look for the silver lining’- opportunities in the aftermath

Insights into what worked:

Key Attributes Contributing to Success in MIC project Crisis

- Neither Management, nor technical teams panicked in spite of major pressure and a long trail of failed options to recover from this crises
- There was complete ownership from each & every one. The team was confident that they we will manage the situation
- The team kept the customer and management informed at regular intervals and maintained complete transparency

- The team was proactive with Plan B & Plan C at every step; in fact not only did they worked at solving the problem but also planned the additional infrastructure to catch up on the backlog even before they were sure of our solution

Lessons Learnt

Effective Crisis Management involves management of the 4 most important aspects. The project teams which are able to effectively plan these can manage crisis well.

- Mitigation & Prevention of Crisis: This will decrease the need for Crisis Management.
- Preparedness: This will facilitate a rapid, coordinated & effective response to a crisis situation.
- Response: The teams should prepare and follow a well-designed crisis management plan. Transparent and timely communication between stakeholders is the key to successful crisis management.
- Recovery: Team should return to business a usual and restore operations as quickly as possible.



Delivery Excellence through Contemporary IT PMO Practices

Supriyo Dasgupta
Bharti Airtel Limited

Category of Submission:

1. Building Project Management Capabilities in Government
2. Project Management in the new age of technology

This submission is aligned with our 'Make in India' program. The abovementioned themes i.e. "Building Project Management Capabilities in Government" and "Project Management in the new age of technology" have been discussed below with the objective of recommending how these are implemented in Bharti Airtel Limited and how they can be linked back to the context of India Inc. These will ensure that the government projects are managed and delivered as per certain standards and as per the stringency & forward facing framework followed in the corporates.

About the Author:

Author Name: Supriyo Dasgupta

Affiliation/Organisation: Bharti Airtel Limited (referred as Airtel in the document)

Author's Role in the presented case study: Implementation of project management processes, tools and governance

Capacity in which Author was associated with the case being presented: Head - IT PMO, Governance & Transformation for India and South Asia

Activities done by the Author personally:

- Directing implementation of IT PMO practices and tools in an end-to-end manner from scratch
- Approve the deliverables of the agencies engaged for setting up the processes and tools
- Drive rollout and adoption of the processes and tools

Abstract

In the rapidly changing B2C, B2B and B2B2C markets, it is imperative for everyone to keep adopting newer methods of delivering better services, products and value to the customers. Project Management being in the heart of most of our day-to-day deliveries, is thus, on the key skills to be honed and applied. While it is a tool to execute the projects effectively and efficiently, its use does not automatically guarantee success. Success of projects does differ from the success of Project Management. Why are some projects considered as failures even when the standards were met? Adversely, why are some projects considered to be successful even if they have gone through time and cost overruns?

Airtel, in their journey of leading the telecom market has been evolving in various spheres of the corporate construct including capabilities, skill sets, and the whole ethos around delivering best value to their customers. While it has transitioned from a somewhat hierarchical to a strong matrix organisational structure, the expectations from the project managers have increased significantly. The impact project managers make to Airtel, its business sponsors, and the PMO team is heavily dependent upon their ability to adjust to the changing needs and demands of both internal and external environments. This paper describes the role of a Control PMO in the context of changing practices and expectations in the field of Project and Program Management. It describes how a control PMO was set-up from ground-up at Bharti Airtel Limited in light of their new IT operating model, what were the challenges faced, how they were mitigated, some of the key organisational constraints and the solution / approach adopted to overcome them. It also touches upon certain day-to-day issues such as Continual flow of newer requirements, Lack of time to create detailed requirement documents for better outcomes, Reducing wastes due to lack of a demand management process, that a project goes through irrespective of the type of industry and how much it is important for project managers to stick to the basics of project management amidst the quickly

evolving project management space. The note concludes with some of the critical recommendations such as the importance of implementing a project governance framework, enforcement of project management disciplines including adherence to processes, guidelines and templates, continuous monitoring, tracking the consequence management of deviations from standards, the need to periodically visit the process to keep them simple and relevant, and running synergy programs between central and state level initiatives to bring down cost and time by removing overlapping / duplicate implementations.

Case Background

Airtel in the last 10 years have seen significant growth in its customer base. This growth was supported by a unique IT operating model that was implemented to bring in efficiency in delivery through smart technology decisions and optimized cost. A single IT partner was brought in to handle the IT deliveries under a loosely bound yet comprehensive scope. However, with the change in customer behavior around consumption of products and services (including the social/technological overhaul phenomenon) it had become imperative for Airtel to move into a more efficient model in order to control the mechanics, quality and cost of IT deliveries within tight timelines and evolving delivery scope. For this, one of the areas that needed significant facelift was a full-blown project management framework/practice that was at par with global parlance (including a project management tool). Phone calls and excel based delivery mechanics was just not sufficing the customer needs and project constraints.

Approach Taken

To shift the needle from ‘zero control’ to ‘full control’, we adopted an end-to-end solution implementation approach. The key aspects considered were:

- **Current state study:** For both, setting up the PMO process and the project management tool implementation, we had spent significant time with the respective vendors to help them understand the as-is state well. We encouraged them to create process maps that best represent the current state. The same were used later while doing gap analysis through comparison with the end-state.
- **End state design:** While a detailed end state process map was prepared, the same went through multiple

versioning owing to lack of clarity of the end to end process and evolving business requirements throughout the life cycle of the project

- **Gap fixing (feasibility, timeline, cost, sourcing):** Similar to the end state process, the gap analysis exercise too continued throughout the lifecycle of the project. We kept fixing the gaps in accordance to the scope and criticality of the requirements / nature of the gaps.
- **Change management:**
 - Determined gaps in the current state e.g.:
 - Processes, templates followed to manage projects vs. standards followed globally e.g. PMBoK
 - Lack of an enterprise grade project management tool
 - Better SLAs around project deliveries
 - Held well planned participative communication sessions (around need and benefits of the change) with our senior leadership team for consensus
 - Obtained stakeholder sign off on the high impacting changes
 - Ensured the changes are trickled down to the last level amongst all operating teams
 - Enabled the on-ground teams to adopt the change (e.g. make processes, templates etc. available on a shared location (Microsoft Sharepoint), set up a central inbox for receiving observations)
 - Pilot based tool roll out than one big bang (used a set of users to test out various aspects of the Project Management tool) before actual UAT
 - Conducted user survey to gather pulse on PMO practices (analysis and implementation of actions – in progress)
 - **Organisational constraints:**
 - Continual flow of newer requirements throughout the project lifecycle
 - **Solution:** Institutionalized a high level business case submission culture at the project initiation stage and started adopting agile way of delivering
 - Ascertain project cost and timeline estimates with minimal variance
 - **Solution:** Institutionalized a project cost and effort estimation template to cut down on estimation variance (~4 IT partners were requested to submit their effort catalogues)
 - Lack of time to create detailed requirement documents for better outcomes
 - **Solution:** Rolled out a requirements gathering document that is designed to cut down on lengthy / inadequate number of lines of requirements (encourage the teams to use graphic / hand sketched images to illustrate the requirements)
 - Relatively moderate speed of project execution

Solution: Institutionalized periodic project governance meetings to review and remove bottlenecks in the critical path of the project, and working on up-skilling our delivery teams to adopt newer methods around project delivery

- Reducing waste due to lack of a demand management process

Solution: Institutionalized a well-oiled demand management process that throttles possible overruns around cost, time, outcome overlaps and drives synergy before the investments are made

Work Done

• New IT Operating model

Through the new operating model we ensured that certain levers are built in, to control the delivery quality, timeline and costs of the projects / programs. Some of the key clauses in the contract were built around the following:

- SLAs around project deliveries: Unlike the earlier operating model, the new operating model has been equipped with stringent SLAs and milestone based payouts in case of project deliveries.
- Introduction of the agile framework based project management practice, spanning across Fixed bid to Time and Material (T&M) to a blend of Fixed and T&M assignments.
- Ability to facilitate vendor diversification program: Through this we ensured that a multi-vendor ecosystem is built to facilitate concurrent development and deployment of IT systems from build to manage cycle.
- Rigor around running a periodic program governance forum to address risks and issues that stands unresolved or go beyond the regular project review meetings

• PMO set up

A couple of consultants were on-boarded through a fixed bid, to help Airtel IT PMO team to set up the requisite set of templates, guidelines, processes to deliver, govern IT projects and large / transformation programs; towards building strong project and program management capabilities.

- Creation of an RFP to onboard an agency for building processes, templates and guidelines
- Evaluation of the bidders and finalizing the scope and commercials
- Selection of the most suitable agency through an evaluation grid

- Taking the agency through an in-depth study of the current state scenario
- Ensuring the proposed deliverables of the agencies are aligned to the ethos, roadmap of Airtel
- Sign off the deliverables and contract
- Monitor implementation in a controlled environment

• Implementation of Project Management Tool

Microsoft Enterprise Project Management platform (MS Project 2013 + MS Project Server 2013 / EPM) was selected as the unified tool for enterprise grade project, program and portfolio management owing to its comprehensive set of features and functionalities around project management. A single vendor was selected for implementing this tool through a fixed bid contract.

In addition to the above Microsoft products, we also got a custom mobile application built on iOS and Android platforms to start with, in order to bring in efficiency in managing project deliveries and governance.

- Evaluate and zero down on the PM tool
- Define scope and requirements
- Design the graphical user interface prototypes
- Validate solution, project plan, and SOW
- Perform user acceptance testing
- Monitor project performance
- Manage risks / issues
- Facilitate project handover to application operations team (include source code takeover)
- Sign off milestones achieved
- Drive user adoption (through communication, training and surveys)

In the Indian context, especially at the state and central levels, there is a need to put in a structure of project management as per certain standards. In addition, it is imperative that the government puts in certain control mechanisms such as stringent reviews and consequence management as it is done in the corporates. Also, there is a need to continually evolve the policies, processes, procedures and guidelines such that (a) the project delivery mechanism are aligned to the relevance of time and priority of the government (b) benefits of the projects are realized as per the project charter laid out at the beginning of the project. It should be noted that all the 3 key bullets in this section are implementable at the central and state levels, provided the as-is situation is studied and future state scenarios are captured in the right manner.

What worked/What didn't:

What Worked

- Building a complete repository of process documents, templates, and a full blown platform for managing projects and large programs in a methodical manner
- Eliminating manual work around processing large amount of data to produce meaningful reports
- Quicker approval cycle
- Close audit observations around project management processes
- Quicker movement of milestones due to mobile application based project management utility

What didn't

- Fluid scope of the product implementation infused a lot of challenges in terms of closing the deliverables within agreed time and cost
- A certain amount of ambiguity in understanding our requirements, by the implementation agency, caused a few overruns and additional payout

Lessons Learnt

- Process design agency
 - The quality of people committed by the agency during the sales phase was not the same as deployed during the execution phase.
Learning:
 - A list of named resources committed by the agency must be captured explicitly with adequate T&Cs in the contract
 - Even in a fix bid project, the resources must be critically interviewed for correct fitment
 - Payout milestones must be made water tight along with the criticality of the deliverables
 - A post engagement support period should be scoped in, such that, the implementation agency gets adequate knowledge transfer from the process design agency
- Tool implementation agency
 - The quality of people committed by the agency during the sales phase was not same as deployed during the execution phase.
Learning: Same as above
 - Small companies have weak processes and resources with relatively weaker skills; usually they do not have match-winning players to meet delivery commitments in case of time overrun.
Learning: Either select a relatively medium / large player to take end-to-end accountability for delivery

and project management or have a solid in-house project manager who can spend significant time in driving the agency team in terms of freezing requirements, solution design, testing and managing the project

- Fluid scope / unclear requirements are inevitable to call for cost and time overruns.
Learning: Freeze the requirements (including taking stakeholder sign off) and adopt waterfall SDLC method to deliver the application. In case the requirements are unclear or have potential to evolve along with the project lifecycle, use the Agile development method
- The effort and intelligence that goes in delivering a project calls for a professional level packaging for better adoption
Learning: Agency must have at least one UI/UX specialist who can be deployed at customer site

Any Other Aspect

- Benefits and value adds:
- **Processes and templates:** A set of standard project management processes supported by relevant templates helped in bringing down the financial waste, streamline the demand request and fulfillment process, improve quality of services and products, lower turnaround time and bring in higher customer satisfaction
- **Project Management tool:** Mobile and web based tools have brought in data transparency which in turn brought in discipline and rigor in the way the projects are delivered. They also had brought in efficacy in terms of producing high quality and meaningful reports for much quicker and effective decision-making.
- Engaging with agencies who understands the Indian corporate ethos helped in designing processes, tools that are both quicker to deliver and adopt; within a fairly low budget mandate
- Tending challenge:

There has been an increasing trend around processes perceived as roadblocks to delivery. "Process = Bureaucracy" is what I have started hearing from both IT and our business counterparts. It is absolutely critical for us to balance the two ends (becoming process less vs. going robotic around process steps discounting the business sensitivities). Either has the potential to drain out time and cost through higher magnitude of defect rate and re-work.

- Scale of implementation and portfolio prioritization

- Scale

At a portfolio level, we managed around 500 projects of various magnitudes in the last 11 months through 30+ IT vendors. These projects/programs cuts across ~7 different business units across India, Sri Lanka and Bangladesh.

Through our institutionalized demand management process, we have approved ~400 projects through a pipeline called 'Change Control Board funnel'. These ranged mostly from Fixed bid to Time & Material to a blend of both Fixed and T&M.

- Prioritization

Our established demand management process is equipped to handle prioritization of projects. Some of the key parameters that drive prioritization are – Customer Impact, Return on Investment, Regulatory Compliance, Productivity, Employee Satisfaction, Competitor outpace

- Implementation highlights:

- ✓ **Alignment Meetings:** Senior leaders, project managers, software architects, software security teams, business analysts were looped in for avoiding late refusals. The Sessions were re-planned and executed using formal discussion sessions followed by releasing consensus notes
- ✓ **On-site Work:** Made the vendors work at Airtel premises to ensure quicker consensus on the deliverables
- ✓ **Periodic Communication:** A series of communication emails, interactive sessions were done across the life cycle of the implementation
- ✓ **Periodic Program Governance meetings:** These meetings were held with vendors to ensure process variations, delivery failures, potential risks are mitigated in a timely manner
- ✓ **Use of college interns:** A couple of college interns helped in cleaning up the old data for migrating to the tool. This saved us a lot of time and effort in getting our migration data clean for database push
- ✓ **User Survey:** Survey was done to do an implementation health check. We got around 100 inputs and ensured every single suggestions/observations was timely responded and shared with all

Recommendations to our government officials who manages projects at central and state level:

Owing to the 'visible' outcomes due to various project overruns at the central and state government levels, it is absolutely imperative for the government

to imbibe some of the best practices followed by large corporates across the country.

At a high level, I recommend:

- Implementation of a project delivery & governance framework for delivering projects
- Enforcement of adherence to basic processes, templates and methodologies (including triggering of a consequence management process for deviations)
- Evolve the processes to include the shortcomings and learning from the implementations

At a transactional level, some of the activities could be:

- Having certain pre-requisites before starting a project e.g. clearly defined goals, assessment for feasibility and business case
- Build a solid project plan considering on-ground constraints around people, process and technology (ensure to integrate the plan such that the inward and outward dependencies are rightly managed)
- Ensure to continually monitor and control the project progress
- Post execution: ensure to close the project post verifying the agreed scope vs. the outcome

One other interesting thing that can be done as we mature our processes is bring in synergy between central and state level implementations. It has to be run as a focused track, such that the synergy mechanics in practice is able to bring down the wastage of cost and time by removing overlapping / duplicate implementations across the center and state.

- Food for thought for the Government

- How to move stakeholders who themselves are not willing to change?
- How to deal with vested interests of key stakeholders and service consumers?
- How to remove the skew between planning and execution?
- How to sensitize Govt. bodies on importance of producing outcomes within time?
- How to incorporate project management courses in Academia?

References

The articulation in this paper has been done without any help of external resources, websites, artifacts, articles, journals or any such related published support.

De-Bottleneck Change Initiative(s) - Evolve PMOs into “Transformation Management Offices”

Gaurav Sapra
Tata Consultancy Services

Category of Submission:

Role of Project Management Office (PMO) in removing bottlenecks for stalled projects

The submitted case explains how effectively expanding and evolving PMO’s role not only revived a complex Business Transformation program of a Mining Organisation but also enabled successful completion of stalled projects leading to significant and sustained business benefits.

About the Author:

Author’s Name: Gaurav Sapra

Affiliation/Organisation: Tata Consultancy Services

Author’s Role in the presented case study: Lead PMO to establish and run the complex Business Transformation Program for a Mining giant in Middle East

Capacity in which Author was associated with the case being presented: Consultant from TCS, assigned to play Lead PMO for the complex Business Transformation Program of a Mining Company in Middle East

Activities done by the Author personally: Due-diligence, planning, implementation and Governance of all activities mentioned in the “Work done” section.

Abstract

In complex transformations, with multiple work streams and demanding execution phases, even the most experienced program managers can lose sight of the business goals they’re trying to achieve.

The support office(s) which plays a critical role in the delivery of large projects or programs can be redesigned and empowered to retain focus on strategic objectives. Organisations that evolve and extend the program management office (PMO) into a transformation management office (TMO) can ensure that business goals are not obscured by day-

to-day requirements to manage project dependencies and track project outputs.

Author, in this paper, presents a real-world case study of a mining company’s complex transformation, wherein, by extending the program management office’s role, the program was put back on track and positioned to achieve sustainable results. The case explains how fully evolved support office (TMO) established an effective Benefits realization Management Framework along with appropriate strategic and operational alignment measurements. Additionally, the TMO instituted critical elements for effective Business transition enabling successful completion of stalled projects and launch of pipe-line initiatives leading to significant and sustained business benefits. The case, finally, evaluates the tangible results achieved by the program, by using the bespoke design of the TMO approach, while maintaining consistent cross-dimensional alignment within the Organisation.

Case Background

A leading metals and mining company in the Middle East wanted to develop mining as a pillar of industrialization in its nation’s economy. At the same time, the company wanted to grow into a world-class organisation. To work towards this vision, the mining giant engaged an external consultant to launch a strategic transformation program. However, the program failed to incorporate few critical components during the initiation phase and did not establish effective organisational governance focused on the business transition and the end benefits.

Challenges included:

- The program lost focus during the execution phase and ultimately wasn’t strategically aligned with the organisation’s business objectives
- Practices and standards were not followed consistently by the program’s constituent projects
- Project outputs failed to transition into business operations

The company felt the need for a result-oriented, dedicated Program Management Office (PMO). Realizing the urgent need to bring the transformation program back on track and restore its alignment with business objectives, the company engaged TCS to provide consultation and operational expertise to maximize the chances of program's success.

Approach Taken

In-depth analysis provided interesting insights.

- TCS identified gaps in the initiation stage of the program. A few pre-cursor activities were identified and launched in the form of different initiatives. These included ones that had been missed out at the initiation stage of the original transformation program and would help build conducive and supportive grounds for success this time around.
- Interviews and focus groups were conducted with (Senior) Vice Presidents and Directors from different businesses to understand the organisational structure, culture, and key opportunities. This was carried out to assess the reasons why the original transformation did not transition into business operations. This analysis revealed the alignment issues and need drive behavior change, oriented with values
- The PMO Team reviewed company's strategy and annual business plan, for last few years, for all mineral businesses in light of Program's master plan. The analysis revealed that there was little/no alignment with ineffective reconciliation process.
- TCS identified opportunities in the initiative stage-gate process to implement and/or improve the projects' governance and sustainability of the incremental transformations implemented through various initiatives.

The PMO team adopted a Benefits focused approach for the Business Transformation Program. The team agreed to patch the biggest holes first and deploy appropriate Standards, Processes as per appetite (and needs) of the Company whilst expanding/evolving its role to ensure tangible and sustainable results for the company are achieved.

Work Done

Few critical corrections were necessary to enable performance measurement and capability management, and garner employee support.

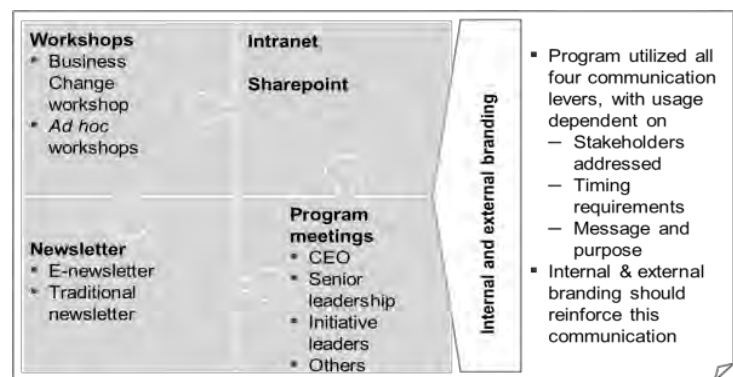
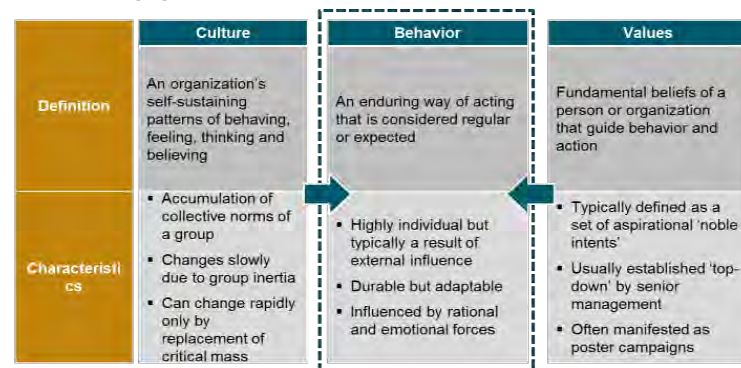
1. The PMO, evolved into a TMO, supported and channelized following corrections/modifications as per the needs, structure and culture of the client

organisation to enable fertile grounds for transformation.

A 'Values to Behavior' initiative was launched to promote values and drive behavior changes that would enable, propel, support and sustain the transformation. This initiative was necessary for the stalled projects, due to alignment and commitment issues, to progress and to build a solid, conducive change platform for the future initiatives.

The program's communication strategy was revitalized and channelized, with controlled used of

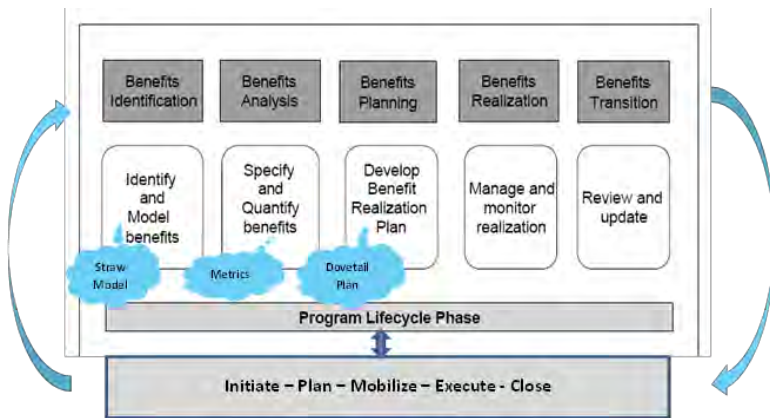
Behaviors: Bridging Culture and Values



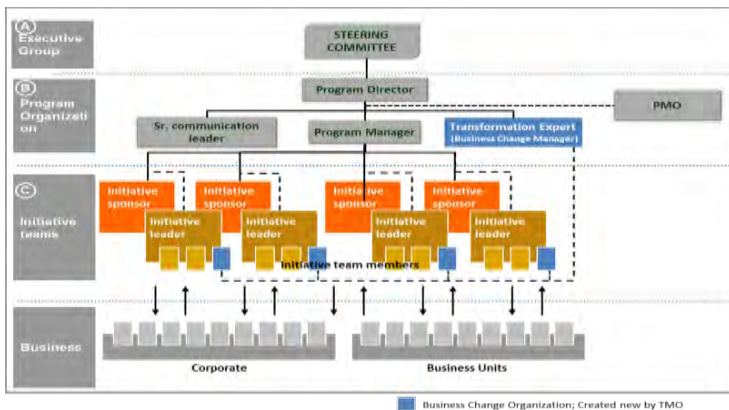
4 key levers, to ensure comprehensive and controlled internal and external communication. Various communication events were designed to increase awareness of and encourage support for the planned changes.

2. Benefits Realization process was introduced along with few supplementing improvements to enable successful transitions into Business Operations and realization of end benefits

A benefits realization approach was established and embedded into the Program Framework to identify, plan, and sustain the benefits intended from the transformation.



The above Framework change wasn't enough and was supported with following infrastructural and procedural changes, whilst the PMO evolved into a TMO, to enable the program to start showing tangible results.



- a. **Business Change Organisation:-** A new Business Change (BC) organisation was established in the Program and Project structure which drew on resources from each business unit, just to ensure that the transition of project outputs to Business operations becomes easier. The TMO team, along with the embedded BC organisation, implemented a change strategy to manage the transition of project deliverables into business operations. The TMO supported the business in managing risks to operations, and in measuring and reporting the benefits achieved.
- b. **Establishing and Maintaining Cross-Functional(horizontal) and strategic(vertical):-** The TMO participated in company's annual business plan cycle to ensure alignment between the organisational strategy and objectives, the business plans of each unit, and the program master plan. This involved working with business planning teams to ensure necessary KPIs and tracking requirements are

part of business planning process/template. This exercise resulted in – a) Budgeting of resources & funds in each unit's plan to ensure commitment to the change initiatives; b) Identification of interdependencies and inconsistencies across organisational initiatives (overlaps, timing interdependencies, resource conflicts, etc.).

Sr #	Performance Measure	Unit	KPI	Target	Frequency	Apr '09	May '09	Trend	Jun '09	Trend
Finance										
1	ITCO Savings (Direct / Indirect)	\$	N		Half yearly					
2	Sprint Burnup rate	\$	Y		Monthly					
						0.80	0.80	↔	0.80	↔
Customer										
3	Customer Satisfaction Index (Overall)	%	Y	80%	Half yearly	84%	84%	↔	84%	↔
4	CSI - Most important parameters rated low	%	Y	10%	Half yearly	60%	11%	↔	11%	↔
5	CSI - Most important Service & Business Goals parameters rated high	%	Y	80%	Half yearly	85%	85%	↔	85%	↔
6	Customer Appreciations	#	N		Monthly	6	9	↑	6	↓
7	Customer Complaints	#	N		Monthly	0	0	↔	0	↔
8	Quality of Service (from annual survey)	#	N		Yearly					
						0.54	0.54	↔	0.66	↑
Process & Delivery										
9	Post Delivery Defects	#	Y	5	Monthly	2	4	↑	4	↑
10	Sprint review Meeting attendance	%	Y	100%	Monthly	100	100	↔	90	↓
11	Monthly Governance	%	Y	100%	Monthly	33%	87%	↑	84%	↓
12	Velocity (per Sprint) (Total)	#	Y	15	Monthly	14	14	↔	14	↔
13	Velocity (per Sprint) (per Scrum team)	#	Y	3	Monthly	3	3	↔	3	↔
14	Burn down deviation (per Sprint)	%	Y	5%	Monthly	8.0%	8.0%	↔	8.0%	↔
15	SLA compliance to response time (Resources)	%	Y	95%	Monthly	99.7%	99.6%	↓	96.4%	↓
16	SLA compliance to response time (Resources)	%	Y	95%	Monthly	97.0%	96.6%	↓	96.7%	↓
Learning, People & Competency										
17	Compliance to minimum competency level	%	Y	100%	Monthly	80%	80%	↔	80%	↔
18	Unplanned Attention in critical phases	#	Y	0	Monthly	1	0	↓	0	↔
19	Upload activity of assets into KM system	#	N		Monthly	0	0	↔	0	↔
20	Reference activity of assets in KM system	#	N		Monthly	0	0	↔	0	↔
Portfolio Performance Index						0.58	0.58	↔	0.72	↑

The balanced Scorecard approach was established to maintain the alignment from Strategy to Business Plans to Program Master Plan to ensure that the program doesn't get diverted from Benefits/results while focusing on the execution.

- a. The existing stage-gate process was optimized to ensure benefits focus of program's constituent initiatives.
- b. The capabilities of the existing SharePoint infrastructure were used to foster collaboration within the initiative teams and ensure standard reporting and governance mechanisms.
3. The TMO team initiated/supported/proposed following Sustainability and growth actions -
 - a. Audit and compliance processes were added to ensure sustainability of change transitioned into business operations.
 - b. A new academy organisation was conceived, and launched within the program to support capability building exercises. Focused approach, used by Academy, class-work with field-application, further helped business transitions.
 - c. An Enterprise Six Sigma team was established to take up improvement initiatives for different business units. The TMO team established a decision tree tool to map different kinds of initiatives with a relevant stage-gate process for effective results.

- d. A new Research and Development function was chartered to support and expand the company's minerals portfolio.
 - e. A new Resources and Reserves Committee (R&RC) was established to oversee all the geo-science data collection and reserves estimation, reporting activities.
 - f. A geo-science forum established to organize events for exchange of technical know-how on the subject across business units (mineral commodities), making the incremental transformations sustainable.
4. Other Improvement actions undertaken by TMO
- a. Standard tools, templates, and enablers introduced and institutionalized across initiative(s) to ensure consistent governance and reporting across the program.
 - b. Performance management initiative launched to achieve an integrated implementation of (top-down) strategy and (bottom-up) performance dialogue(s), across businesses.
 - c. Initiatives were launched to rationalize disparities in the IT landscape across business units and corporate. This enabled the IT team to better support transformational initiatives.
 - d. Procurement functions across the organisation were benchmarked and streamlined.

The Work done for the typical Business transformation of Mining Company can be consolidated into an easily implementable model/framework which could be customized to suit the applicability in different Organisations in accordance with identified organisational variables like Structure, Culture, Risk threshold etc.

What worked/What did not

Achievements

The TMO team helped the mining giant revive its business transformation program by aligning the program's objectives with those of the business. The stalled projects got completed and other change initiatives, in pipe-line, got launched successfully, leading to realization of sustained incremental transformations and achievement of following tangible benefits:

- The phosphate business unit gained \$120 million in annualized EBITDA, reduced costs by \$21 per ton, and improved production and mineral beneficiation by 20 percent.
- Capital productivity of major mining projects improved through risk evaluation and value engineering, with an estimated savings of \$138 million in capital expenditure.
- Annual savings of nearly \$6 million in operational expenses was achieved through the strategic category management approach, which led to better supplier relationships and negotiations.
- The TMO also established effective procedures for collecting and recording geo-sciences data compliant with the international Joint Ore Reserves Committee (JORC) 2012 standards.
- The company achieved the Diamond 3 excellence level in Environmental, Health, and Safety (EHS) standards. Organisational capabilities were enhanced in areas such as procurement, operations, exploration, and capital productivity.
- A new R&D center became operational and initiated facilitating development of new opportunities. Human Resources (HR) strategy and processes for recruiting and induction were streamlined and integrated to support the organisation's growth.

Opportunities for Improvement

- Though the business transformation process enabled IT functions to replace old and disparate manual processes with unified and automated systems, there is still a huge potential for further optimization. The TMO should ensure each mini-transformation effectively uses automation to ensure sustainability of the change.
- The inorganic growth of the organisation has resulted in some disparity in the performance dialogues of different production businesses leading to challenges in transitioning some commodity businesses on to the performance management system. There is an opportunity to have a tailored change management strategy to enable the transition and rationalize these disparities.
- There is also an opportunity to further optimize the levers of communication strategy for the transformation program to ensure effective communication through dynamic channels to ensure reach to and engagement with all levels of the organisation.

Lessons Learnt

- Assign appropriately skilled resources, who are identified using an established resource identification framework, to enhance the initiative's chances and degree of success.

- Establish a rewards and recognitions program to identify and recognize the key performers in the different initiatives of the program. This would not only boost the morale of the existing personnel involved in the projects but also attract involvement and interest from the rest of the organisation.
- Set up appropriate quality management and governance processes to ensure the quality of the output from the change initiative is fit to be transitioned into the business.
- Introduce program evaluation process in terms of well-timed program reviews, audits, and health checks to ensure timely preventive and corrective actions.

Any Other Aspect

1. The Transformation Management office (TMO) is currently undergoing optimization to be more effective in its operations in FY 2015-16.
2. The experience from successful results of this engagement is being used to establish a standard model for TMO operations which would be rolled-out in the form of an industry whitepaper.

Session II

Project Risk Management and Stakeholder Engagement

Session II - Project Risk Management and Stakeholder Engagement

Session Chair:

Dr. Sanjeevan Bajaj
Chief Executive Officer
FICCI Quality Forum

Engaging with stakeholders early on is critical to ensure that project activities are designed to carry them along and avoid problems at later stages. Addressing their concerns and mobilising their support has to be an essential element in all projects. In the same vein, it is also critical to analyse and incorporate risk management activities into the project design.

This session is about tools/techniques and change management actions for stakeholder analysis and on-boarding, and for project risk management.

Getting Internal Stakeholders On board: Aligning expectations to the program outcomes

Arun Vasudevan
Tata Consultancy Services

Category of Submission:

Quality of Stakeholder Engagement and Risk Management imperatives in large projects

About the Author:

Author's Name: Arun Vasudevan

Affiliation/Organisation: Tata Consultancy Services

Author's Role in the presented case study: Lead Program Manager consultant with the client's Organisation, in setting up Program Management Office (PMO) for the Airline. He defines program delivery structure, roles and responsibility for the program, and was involved in the preparation and execution of the stakeholder engagement plan.

Capacity in which Author was associated with the case being presented: Lead Program Manager consultant with the client's Organisation

Abstract

Engaging stakeholders is a critical success factor in almost every project/program, irrespective of size and complexity. Early reconciliation of multiple stakeholder interests can avert dominance of dissent group that can derail progress. It is normal to hear from the project manager(s) that initiatives lack stakeholder buy-in or stakeholder(s) fail to understand and appreciate the project objectives and expected outcome(s). The question is whether the project manager(s) made an effort to create awareness and get buy-in? The project manager(s) is successful in identifying and classifying the entire project stakeholders into say opponent, promoter, resister and enthusiasts. This process of identifying and classifying stakeholders will only take a project manager to certain point, beyond which it is all about how effectively one can engage or disengage stakeholders during the project journey. This article will try to address the art of managing stakeholders based on case experience where author was directly involved in the way stakeholders where engaged and overcome resistance. The basic premise of the case study is that there is no one-size-fits-all, and each case or situation is unique – while approach is similar, but strategies are different.

Definition of Stakeholder Engagement

Project Management Body of Knowledge (PMBOK, 5th Edition) defines stakeholder engagement as a “Process of communicating and working with stakeholders to meet

their needs/expectations, address issues as they occur, and foster appropriate stakeholder engagement in project activities throughout the project life cycle.”

There may be some limitations in this definition, but we will not get into this debate. Also, PMBoK provides a prescriptive framework (what to do), but how it needs to be done can vary from project to project. Stakeholder management needs to look from the cultural aspect of the organisation. It is here we need to understand that there can be no one-size-fit-all approach to stakeholder engagement, given that the project manager will have to operate and manage relationship within the political environment of the organisation. In the case study that will be discussed in coming sections, you will appreciate the way a key decision making stakeholder was managed to get things moving smoothly in a large transformation program..

Case Background

A commercial airline company in the Southeast Asian region faced several challenges such as severe competition from the low-cost airline, operational issues, raising cost and declining productivity. The existing processes and technology were not flexible in fueling future growth. These issues directly impacted the scale, customer experience and revenue growth. To revitalize the sagging growth, the airline embarked on organisation wide restructuring with major focus on revenue management function. As part of improving revenue growth, increasing customer footprint and sale and improving customer satisfaction, the airline decided to join SkyTeam Alliance comprising 19 airlines. By joining SkyTeam Alliance, the company was expected to expand its network, increase passenger traffic and improve connectivity to different sectors. These factors were expected to contribute towards growth in revenue.

While business challenge was to align the existing system and process to the standards prescribed by the SkyTeam Alliance, the timelines were demanding. Airline had only 18 months to migrate to the community platform. The challenge was managing the change across 14,000 impacted users, including change awareness, training and cutover readiness.

Problem: Information system in airlines companies are highly integrated from passenger acquisition to departure management. The airline revenue management department sphere heading the system change focused primarily on 14,000 users, but from the information system perspective impacted users are quite different. The airline IT system was completely managed by its whole-owned subsidiary [IT Partner]. While the knowledge regarding the systems resides with the IT partner, it was not included in the program governance.

The question is why should the IT partner be part of the governance? To illustrate, when the revenue management system is surgically removed [Refer to Figure 1] from the existing system and moved into community-based platform two things need to be taken care off:

1. Business processes of revenue management are completely mapped and migrated on to the new platform – this was managed by the vendor
2. The residual system (impacted systems) that remains after surgically removing the revenue management requires to be integrated – responsibility of airline IT partner

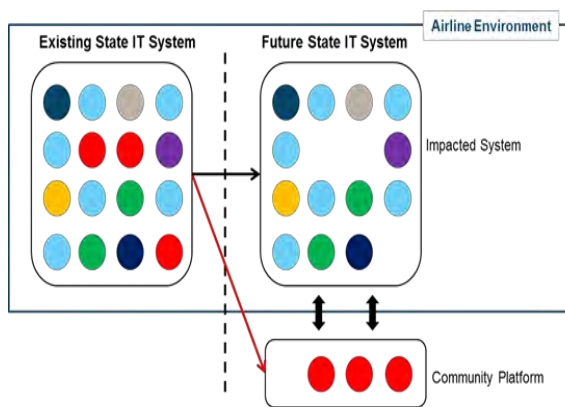


Figure 1: Pictorial Illustration of Existing and Future state of IT systems in the Airline

After three months into the program, the program management team had failed to recognize following risks due to the non-involvement of the IT partner:

1. Identifying the impacted systems and managing for completing the business process integration with the community platform
2. Migrating data from the existing system to new community platform and supporting integration testing

While the revenue management that was managing the program failed to recognize that the IT partner's role is crucial for the success, the IT partner was unwilling to be part of the program due to possible loss in revenues owing to the change.

The following figure 2 depicts the program delivery structure – indicating the responsibilities of the different stakeholders in the program. The accountability and responsibility of the IT partner is highlighted in 'red' loop.

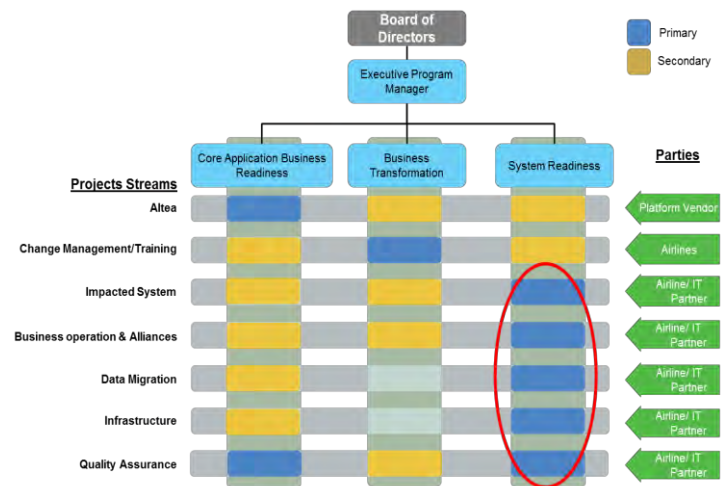


Figure 2: Program Delivery Structure

Approach Taken

From the change management and stakeholder engagement perspective, the program team adopted a push-pull approach – ‘conventional push activities that enforce change’ were complemented by ‘pull activities that provided employees / end user opportunities to embrace the change’.

Following table provides an approach based on the stakeholder groups:

Stakeholder	Approach	Remarks
Impacted business users (internal to airlines)	<ol style="list-style-type: none"> 1. Involving selected SMEs in the program 2. Training on new system and process 3. Regular communication from the leadership 	Stakeholders were all from the revenue management department. Involving them helped in preparing them for the cutover to new system and process
Impacted Business users/ affiliates/ agents (External)	<ol style="list-style-type: none"> 4. Training on the system 5. Agreement on new policies related to commissions and payments 	External stakeholders are mostly the airline agents who contribute towards major source of airline traffic
Impacted IT partner	<ul style="list-style-type: none"> • Assurance for not impacting business • Well defined role in the program 	IT partner while continue to provide its service to airline even after cutover
Rest of the stakeholders	Regular communication from the leadership team about the progress	Information and knowledge

Execution of the Plan

This section will only address how the IT partner was managed throughout the life cycle of the program and how risks were mitigated. The challenge was to bring the IT partner onboard – the main issue was not the revenue loss for the IT partner from this program but the conflict at the level of key stakeholders. The executive program manager (sponsor) who headed the migration program and the chief technology officer (CTO) who headed the IT partner had differences in their opinions. Initial discussions at the individual levels by the program management team did not yield required results. The CTO ensured support in terms of providing technical resources and participating actively in the program, which did not materialize.

To overcome the issue, the Program Management team played a major role by seeking the intervention from the airline Director of IT who was quite influential and represented the airline’s Board of Director on all technology related matters. With the guidance and involvement of the Director, the CTO and Executive Program Manager agreed upon the roles and responsibilities of the IT partner for the program. A governance mechanism [Refer to Figure 3] was put in place to manage the relationship at leadership and tactical/operational levels.

Governance for Engaging Internal IT Partner
Build Bridges to Overcome Difference/ Conflict

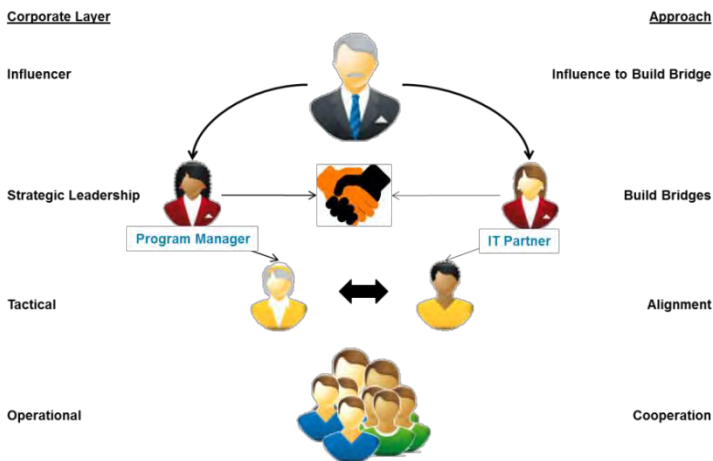


Figure 3: Governance Mechanism between Airlines and IT Partner for the Program

The leadership team chaired by the IT Director agreed to hold face-to-face meetings every fortnight. For managing day-to-day activities / relationship, a liaising agent in the role of program management consultant was included to the IT partner. This helped in managing and mitigating tactical and operational risks of the program.

From the context of developing project management/ program management capabilities in India, particularly in governmental sectors, for stakeholder management to be effective, one need to recognize that India is a hierarchical

society. The roles and responsibilities in government organisation are well defined. As a project/ program manager one need to manage stakeholders as per the roles.

Achievement

- Airline was able to qualify for the SkyTeam Alliance with the program delivery in 18 months.
- All stakeholders embraced the change seamlessly and were cutover ready.
- The migration was quick and secured without disruption to the day-to-day airline operations, particularly the departure control system [including customer management and flight management].
- Impacted system readiness was achieved without problems and business process testing on the community platform was completed without issues.

Lessons Learnt and Conclusions

- Identification of stakeholders at the onset was important even if the role of a stakeholder may be trivial. Recognition of stakeholders concerns at the onset will help in easy onboarding.
- There is no one-size-fits-all. Each stakeholder/ stakeholder group is unique with the expectations, thus engagement with them should be unique.
- Clearly define the roles and responsibilities of all the stakeholders – [define an RACI (Responsible, Accountable, Consulted, Informed) matrix] and set their expectations to meet program outcomes.
- Utilize services of influential stakeholders as change intervention agents and to resolve conflict situations.

The case clearly recognizes the way the stakeholders are to be managed uniquely. The stakeholder’s management is not just about sending frequent communication about the progress of the project, but it is more to do with “how” the un-stated expectations are being met by the project/ program. The take-away from this case is that, each stakeholder is unique individual/ group; hence there can be no one-size-fit-all solution to manage and control stakeholders. It is not just communication skill of the project manager that will come into play, but also greater degree of his/her interpersonal and management skills (read politicking relationship). Also, the project manager must be aware of the cultural aspect of the society at large. For instance, India is still a hierarchical society, top-down work effectively. For the top-down to be effective, the leadership needs not only be involved, but also play an active part.

Approach Taken Stakeholder Assessment

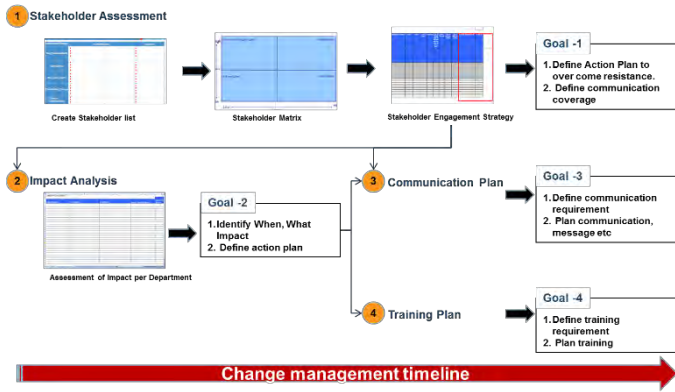


Figure 4: Approach for Stakeholder Management – Assess, Analyze, Plan and Train

Approach Taken Unique Stakeholder Groups

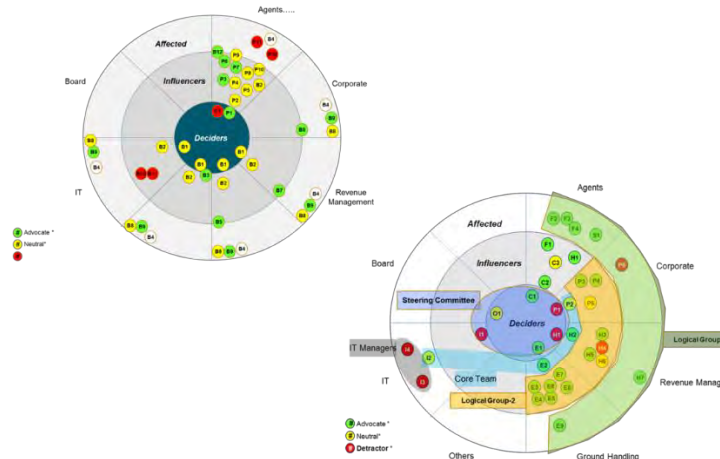


Figure 5: Stakeholder Grouping

Are Stakeholders at Risk?

Kiran Kambhampati

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Category of Submission:

Quality of Stakeholder Engagement and Risk Management imperatives in large projects

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Activities done by the Author personally: (Case Study 1)

- Training and Coaching teams at all levels
- Mentored and reviewed the project / sub-projects and team outputs

Abstract

If the only constant is change, then why do so many organisations struggle with it? The truth is: Most people aren't inherently resistant to change; they're just resistant to being changed. That's why effective change efforts aren't just about managing change—they're about leading change. We must be proactive and get in front of our stakeholders, understand their needs and address them before resistance takes root. We must make a plan for how to move people in a direction that aligns with organisational objectives. Otherwise, a well-developed strategy becomes only a map, with no compass for people to follow.

Most corporate leaders aren't well versed in the process of change, how to manage it or how to sustain it over time. Most think change is about issuing directives and clearly communicating with stakeholders, bosses and subordinates—but leading successful and sustainable change requires far more than this.

It means developing an ability to understand team members' individual problem solving styles, as well as how to work with those styles. It means identifying and influencing stakeholders. Above all, it means recognizing that change is happening—and we all have a choice as to whether or not we will be leading the change.

We have to know what we want to accomplish and have a detailed plan for getting there. We have to know who might stand in our way and how to overcome inevitable resistance. We have to effectively manage conflict and win people's support. And we certainly have to gain insight about ourselves so we can become more effective

in our communication and interactions with others.

Case Background

Case 1 – Indian Private Sector Company

- One of India's largest conglomerates with a presence in diverse industries such as FMCG, IT and Services with a turnover of more than USD 8 bn and 25,000 employees
- Embarked on a major 5 Year Operational Excellence Project / Program in 2013-14 for one of its key business units having revenues of more than Rs 3000 cr
- The key measurable business objectives for the entire program included Growth in Volumes and Profitability

Case 2 – Indian Public Sector Enterprise (Navratna)

- One of the most advanced steel producers in the world having revenues of more than USD 2.5 bn
- It faced a series of challenges with respect to weak profitability and severe mismatch in production volumes
- The Project focused on diverse functions like
 - Core Operations like Steel Melt Shops
 - Support Operations like Machine Shops & Coal Handling Plants
 - Support Services like Administration & HR
 - Extended services like Town Administration

Approach Taken

Case 1

- Champions Workshop & Project Finalization
- Develop Competence
- Execute Identified Projects
- **Stakeholder Analysis and Management**
- Implementation of Projects
- Realization and Replication of Benefits

Case 2

- Executive Leadership Workshop
- **Risk Assessment and Mitigation Planning**
- Train-the-Trainer Workshops
- Formation of Project Action Teams
- Achievement of Tangible Benefits

Work Done

- Specific Tasks included (but not limited to)-
 - Introduction to the Roadmap / Journey
 - Definition and Alignment of Roles and Responsibilities
 - Define As-Is State
 - Project Definition & Scoping
 - **Change Leadership**

- **Stakeholder Analysis**
- **Stakeholder Management**
 - Building Team & Facilitation Skills
 - Data Collection & Analysis
 - **Risk Management including**
 - **Process FMEA (Failure Modes and Effect Analysis)**
 - Generation & Evaluation of all possible scenarios
 - Contingency Planning
 - Implementation Planning
 - Building Control Plans for sustaining the Gains / Benefits
 - Project Closure
- **Specific Approach taken for Stakeholder Analysis and Management**
 - **Stakeholder Analysis and Management**
 - The BMGI Stakeholder Analysis methodology was used to understand stakeholders' views and attitudes towards the change so that we could respond to them in the best possible way
 - **Tools / Templates Used**
 - **Stakeholder Diagnostic Tool**
 - **Power / Influence Map**
 - **Leverage Matrix**
 - **Stakeholder Management Action Plan**
 - **Methodology**
 - List stakeholder names in the **Stakeholder Diagnostic Tool**
 - There are three main types of stakeholders:
 - Person who is responsible for decisions
 - People who have influence over whether implementation proceeds successfully or not
 - People who are affected by the project
 - Some possible examples of stakeholders:
 - External / Internal customers
 - Suppliers
 - Process Owner
 - Project team resources
 - Affected departments
 - Workers
 - Support personnel
 - Plot each stakeholder on the **Power/Influence Map**
 - Stakeholders can be separated into four categories, relative to their power in the organisation and their level of influence over the project
 - Transfer the category information from the Power/Influence Map to the Stakeholder Diagnostic tool
 - Identify how much the stakeholder will be affected by the outcome of this project (quantify the impact)
 - Validate the stakeholder's current level of support directly or indirectly. Estimate -
 - Current level of support for the project
 - Desired, or "minimum required" level of support
 - The difference, or delta, between these levels
 - This step could be very sensitive, making assumptions here would be risky
 - Not every stakeholder needs to be strongly supportive of the project
 - The goal is to decide just how much we need to change

each stakeholder's opinion of the project, so the effort is expended where it can do the most good

- The higher the organisational power or the stronger the project influence a given stakeholder has, the more important it is for that stakeholder to be supportive, or at least neutral.
- List the reasons each stakeholder supports or opposes the project.
- It may be helpful to categorize these reasons as Technical, Political, or Cultural
- Develop the **Stakeholder Analysis Action Plan**
- Plan for gaining acceptance for the project by approaching the key stakeholders
- Leverage 'friendly' allies using the **Leverage Matrix**
- Proactively move stakeholders from "opposed" to "supportive" or at least to "neutral" where appropriate
- Minimize the risk of supporters opposed to the project
- Customize the action plan to the specific concerns and needs of stakeholders
- Identify specific actions with due dates and person responsible
- Monitor feedback on changes of their behaviors
- Keep the plan alive, this is not a one-time event
- Communicate frequently and effectively

What Worked / What Didn't

Achievements

Case 1

- Overall bottom-line benefit projection of USD 2.5 mn
- Involvement of over 500 people across a wide range of functions

Case 2

- Overall benefits running into multiple crores
- Return on Investment of 30:1
- Involvement of over 2700 people across a wide range of functions
- Led to organisation receiving award at national level

What Worked

Case 1

- Weekly reviews with Project Leaders
- Monthly reviews with Chief Executive
- Periodic publishing of dashboards to key stakeholders

Case 2

- Project was driven right from the top tier with the personal involvement of the Executive Director
- Training sessions for the senior leadership
- Core Cross-Functional team of 60 resources

Improvement Opportunities

- Some delayed milestones could have been avoided
- Better alignment of people to roles and responsibilities

Lessons Learnt

- Stakeholder Analysis and Management is crucial for successfully leading / catalyzing Change Management within organisations. Although advancing a business requires significant change, most corporate leaders aren't well versed in the process of change, how to manage it or how to sustain it over time. Most think change is about issuing directives and clearly communicating with stakeholders, bosses and subordinates—but leading successful and sustainable change requires far more than this.

Any Other Aspect

- Critical components in successful Stakeholder Management include –
 - Leading and implementing at multiple levels within the organisation
 - Recognizing and implementing the key elements that make stakeholder management and change sustainable
 - Develop and implement a stakeholder management strategy and plan
 - Develop a vision and unify people behind it
 - Analyze the position of key stakeholders and the keys to influencing them in the right direction.
 - Identify resistance and create strategies to overcome it.
 - Identify and manage conflict for positive results.

References

BMGI Case Studies
BMGI Repositories

Strategies for Successful Software Development: Risk Management in Large Projects

Sanjukta Mandal, Somdatta Bannerjee, Sudipto Roy, Ananda Chakraborty, and Anand Prasad
Cognizant Technology Solutions India Pvt. Ltd

Category of Submission:

Quality of Stakeholder Engagement and Risk Management imperatives in large projects

The current submission is based on successful strategies for stakeholder engagement and risk management in large IT projects executed primarily from off-shore (India). The strategies highlighted in the submission should be helpful for projects across any domain apart from IT, wherever there is involvement of multiple stakeholders.

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Capacity in which Author was associated with the case being presented: SANJUKTA MANDAL¹ acted as primary author for the Stakeholder Engagement section, SOMDATTA BANERJEE³ worked on Risk Management and ANANDA CHAKRABORTY² conceptualized and authored the rest of the sections. Both SUDIPTO ROY⁴ and ANAND PRASAD⁵ coordinated and acted as primary reviewers for the paper.

Activities done by the Author personally: SANJUKTA MANDAL¹, ANANDA CHAKRABORTY², SOMDATTA BANERJEE³ acted as primary authors and SUDIPTO ROY⁴, ANAND PRASAD⁵ acted as primary reviewers. Each of the team members actively participated in research, interview and data collection exercise as well.

Abstract

Today's Software Development scenario is often complex and large sized, involving multiple and diverse technology stacks. Not only that, the development team composition is also complex with resources differently located geographically and resources both from customer and vendor organisations working together. Effective stakeholder engagement and risk management plays a key role in

the success of such large, complex, multi-stakeholder driven software development scenario.

In our organisation, we follow some time-tested best practices in stakeholder engagement and risk management paradigm.

As a part of the current case study, we have tried to focus on a program involved in developing an online ordering system for a large fast-food chain in the restaurant domain of business. It involves multiple key-stakeholders (both internal and external) including multiple CoEs and horizontals and handling dependencies amongst each one of them is a key success-factor.

As a first step towards effective stakeholder engagement, the entire program was divided into its life-cycle stages called "Engagement Life Cycle" (ELC). Once the stake-holders are identified, they are again mapped across quadrants of increasing influence and interest in the whole program. Typical communication norms are established as to whom to "work together" (Inform, consult and collaborate) and who to be "kept satisfied". Once stakeholder identification and analysis is completed, the next step was to formalize and employ the best governance and reporting mechanism to inform, consult and collaborate with each of them. The communication plan thus developed, considers the audience location and frequency for communication.

On the other hand as a part of the risk management methodology implied for the program, the typical risks types were identified across the ELC stages from our organisational risk repository and also mapped accordingly in the stakeholder quadrant.

Once the risk analysis was conducted at the very beginning of the program, organisational risk management process was employed with appropriate customization to meet our current engagement needs. Risk identification was carried out through different assessments and reviews across the ELC. All identified risks were then logged into the organisational risk repository (Risk Portal) with appropriate severity, priority and adequacy of control scores, known as "Risk Priority Number". The entire risk tracking, mitigation planning and reporting mechanism was based on the identified risks priority number and their corresponding mapping in the stakeholder quadrant plot.

The typical lessons learnt from the exercise are:

- Effective stakeholder engagement improved the quality of decision making
- Reduced product revision cycle
- Early and timely risk identification and effective mitigation
- Ensured communication transparency across all phases

The engagement was successfully delivered with no show-stopper issues and no production roll-backs in the entire deployment life-cycle with no schedule deviation. The effective stakeholder engagement and risk management held the key to succeed for our pledge towards “*Make in India*”.

Case Background

Today’s Software Development scenario is often complex and large sized, involving multiple and diverse technology stacks. Not only that, today’s development team composition is also complex with resources differently located geographically and resources both from customer and vendor organisations working together. The development methodology too differs expanding from conventional waterfall model to incremental/iterative and to most sought after methodology in today’s world-Agile.

Typical challenges in multi-stakeholder engagement include:

- Lack of communication transparency
- Coordination issues in multi-stakeholder program execution plan
- Delay in decision making
- Accountability issues
- Delay in risk anticipation and effective mitigation planning
- Financial impact on dependent stakeholders due to schedule delay from another stakeholder.
- Stakeholder rivalry acting as impediments to successful program execution

Effective stakeholder engagement and risk management plays a key role in the success of such large complex, multi-stakeholder driven software development scenario.

In our organisation, we follow some time-tested best practices in stakeholder engagement and risk management paradigm.

The engagement under consideration is a large program where Cognizant is entrusted to develop an online ordering system for a large fast-food chain in the restaurant domain. This is a new logo for the organisation and is one of the largest take-out and fast-food delivery restaurant chains in the world. This is an

organisational strategic account and successful execution of this project would lead to launch of this application in several stores in 26 cities in India. This would thereby create job opportunities and future revenue for the organisation and for the country at large. The go live date is fixed and client wants to launch the new application before Diwali. Team needs to develop this whole application with zero P1 issue, perfectly user-friendly interface and within the fixed timeline of 150 days. The online ordering system involves multiple technology stacks and is supposed to have multilingual interface catering to major regional languages. The engagement involves multiple key stakeholders and handling dependencies amongst each one of them is a key success-factor. The estimated effort for this fixed-bid project was around 3700 PD and involving a 40 member development and testing team.

Major challenges in the program execution primarily:

- Strategic engagement and New Logo for the organisation
- Countrywide fixed roll-out date
- Multi-stakeholder, multi-location, multi-technology encompassing program
- Successful roll-out opens up further opportunity for revenue and employment for the organisation and country at large

Approach Taken

At the very beginning it was understood that the success of the program largely depends on the effectiveness of the stakeholder engagement and communication transparency. Also probable risk factors are to be identified at the very onset and mitigated effectively before they turn out into issues acting as impediments to seamless and successful program execution.

The entire stakeholder engagement and risk management process prevalent in Cognizant was undertaken with necessary customization for successful delivery of the program. The stakeholder engagement primarily focusses on identifying key stakeholders (both internal and external), assessing their influences and interest in the whole program outcome and thereby devising a common stakeholder governance and reporting mechanism. Finally a communication plan was devised as an outcome to involve, collaborate, consult and inform respective stakeholders at the right time, every time.

On the other hand as a part of the risk management methodology implied for the program, the typical risk types were identified across the engagement life cycle stages from our organisational risk repository. Again, using the stakeholder interest vs. influence quadrant,

such typical risks were mapped for affinity across the stakeholder quadrants.

Once the risk analysis was conducted, organisational risk management process was employed with appropriate customization to meet our current engagement needs. Risk identification was carried out through different assessments and reviews across the ELC (such as “Deliverability Assessments”, “CDCC”, “ Program Governance Reviews”, “Compliance audits”, “Project kick-off meetings etc.). All identified risks were then logged into the organisational risk repository (Risk Portal) with appropriate severity, priority and adequacy of control scores, known as “Risk Priority Number”. The entire risk tracking, mitigation planning and reporting mechanism was based on the identified risks priority number and their corresponding mapping in the stakeholder quadrant plot.

Work Done

As a first step towards effective stakeholder engagement, the entire program was divided into its life-cycle stages called “Engagement Life Cycle” (ELC). The sub-phases within an ELC are “Pursuit”, “Initiation”, “Transition and Delivery” and “Closure”. “Pursuit” is effectively the “Request for Proposal” (RFP) stage where the solutioning approach and the entire engagement contracting takes place. “Initiation” is the ELC stage where the contract is handed over to the development and execution teams for their understanding. The formal project set-up in the tracking system also takes place. The “Transition and Delivery” stage is effectively the Software Development Life Cycle (SDLC) stages initiated by “project kick-off” and continues till project “Go-Live” stage. “Closure” as the name suggest, is the culminating stage of the engagement life-cycle, represented by program retrospection and seamless asset/service transfer (enablement or knowledge transfer) to the service maintenance team.

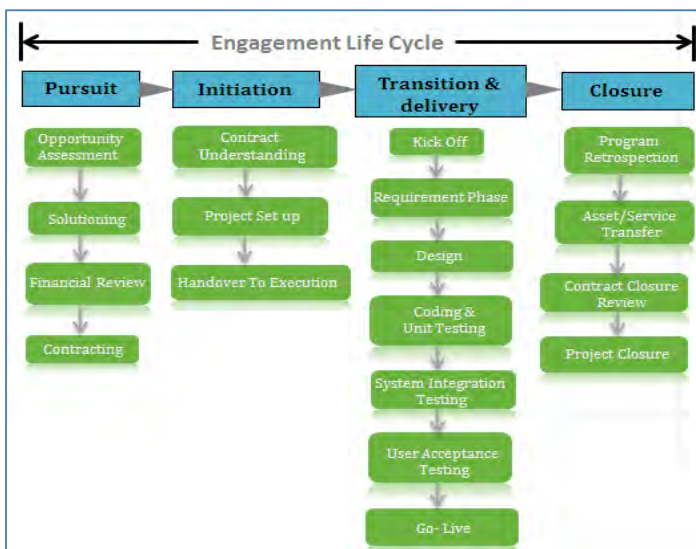


Diagram of Engagement Lifecycle (ELC)

As a next step, all stakeholders (both internal and external) are identified who are involved in one or multiple stages in the ELC. This is one most important step, as often we miss out on including one or more key stakeholders while designing the stakeholder engagement plan and thereby losing out on the effectiveness of the stakeholder communication plan.

Stakeholder \ Phase	Pursuit	Initiation	Transition & Delivery	Closure
Network Security Service			✓	
Global Information Security			✓	
Client Representative			✓	
HR	✓	✓	✓	✓
Admin			✓	
Delivery Team		✓	✓	✓
Center Of Excellence (CoE)	✓		✓	
Academy			✓	
Delivery Leadership Team	✓	✓	✓	✓
Delivery Excellence	✓	✓	✓	✓
Deliverability Assessment Team	✓			
RFP support Team	✓			
Marketing	✓			
Finance SME	✓	✓	✓	✓
Pursuit Manager	✓	✓		
Legal SME	✓			✓
Vendor			✓	
Contractor			✓	

Diagram of Stakeholder Mapping

Diagram of Stakeholder Engagement



Once the key stakeholders are identified, they are then mapped across interest vs. influence quadrants on the whole program. Typical communication norms are established as with whom to work together (Inform, Consult and Collaborate) and who is to be kept satisfied with the overall progress (and required risk/issue mitigation) of the program execution.

Grid for Stakeholder Prioritization

- High Influence, High Interest (Quadrant I): these are the stakeholders who must be fully engaged with, and

greatest efforts were made to satisfy them. As for e.g. Delivery Team, Vendor counterpart etc.

- High Influence, Low Interest (Quadrant II): enough work was put in with these stakeholders to keep them satisfied, but not so much that they become bored with our details. As for e.g. Delivery leadership, Customer leadership etc.
- Low Influence, Low Interest (Quadrant III): these stakeholders were monitored but not bored them with excessive communication. As for e.g. HR, Administration etc.
- Low Influence, High Interest (Quadrant IV): these stakeholders were adequately informed, and consulted to ensure that no major issues are arising. These stakeholders can often be very helpful with the detail of our project. As for e.g. Technology CoE, Risk Assessment team etc.

Once the stakeholder identification and interest/influence wise quadrant analysis is completed, the next step was to devise and employ the best and most effective governance and reporting mechanism, tailored to suit the need for the engagement. This will help to inform, consult or collaborate with each of the stakeholder as the case may be. As for example, for the stakeholders placed in the 1st quadrant (Work Together) the more detailed mode of communication through daily stand-up call, weekly onsite- offshore status meetings, Voice of Customer (VoC) etc. were employed. On the other hand, for the stakeholders in the 2nd quadrant (Keep Satisfied) monthly governance review meetings, Customer Satisfaction Survey (CSS), quarterly steering committee review meetings etc. were employed as most effective communication modes.

therefore may need customization accordingly to meet the changes.

SDLC Stages	Stakeholder	Mode
Requirement	Client Business Team, Cognizant Business Analyst, Delivery team	Requirement Workshop, Requirement Clarification Meeting
Design	Design CoE, Development Team, Customer Architect	Design Walkthrough, Mock up Screen Demo
Coding & Unit Testing	Development Team, Cognizant CoE, Customer IT Team	Code Walkthrough, Code Review, Unit Test Case Review
System Integration Testing	Testing Team, Development Team, Customer IT Team	System Test Case Review, Defect Triage meeting
User Acceptance Testing	Customer Business Team, Customer IT Team, Development Team	Defect Triage meeting, UAT Sign off Communication
Go- Live	Customer IT Team, Customer Infrastructure Team, Development Team	CAB Meeting, Deployment Success confirmation

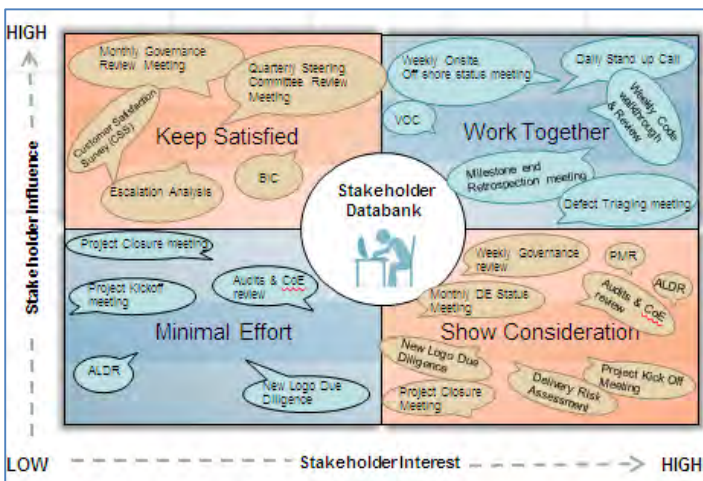
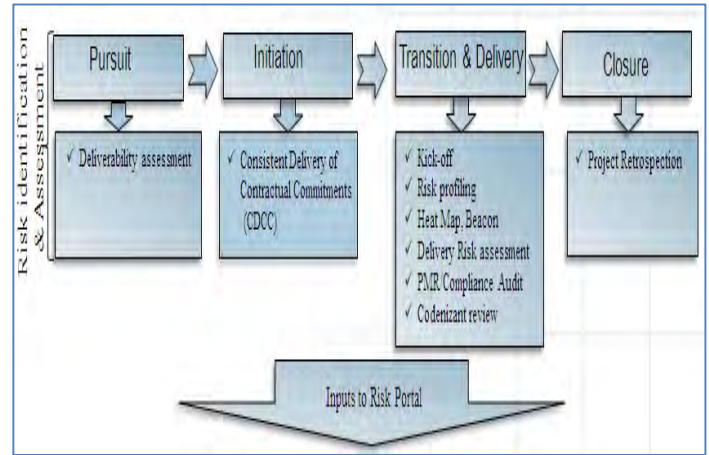
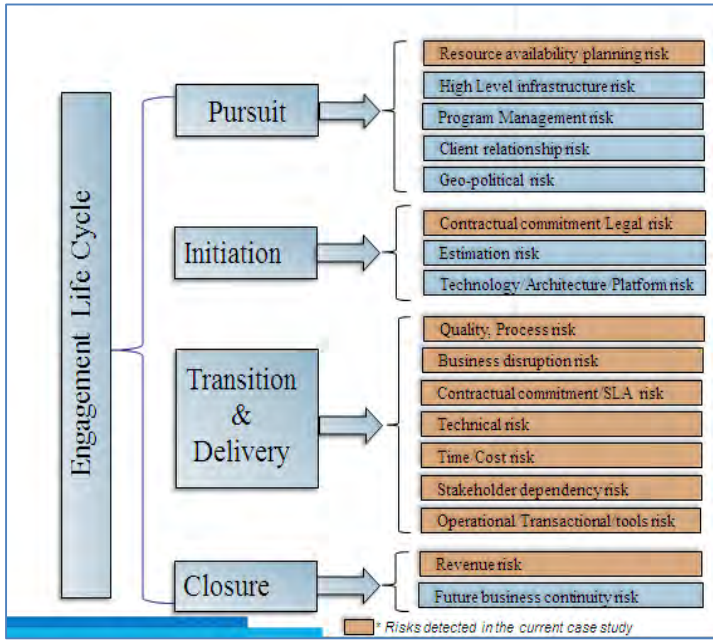


Diagram of Stakeholder Governance Model

The communication plan thus devised captures the audience, location and frequency of communication. However it was always kept in mind that the initial design of stakeholder engagement changes along the program execution. The communication plan

Stakeholder Communication Plan

On the other hand as a part of the risk management methodology implied for the program, the typical risk types were identified across the engagement life cycle stages from our organisational risk repository. Again, using the stakeholder interest vs. influence quadrant, such typical risks were mapped for affinity across the stakeholder quadrants.



Risk management Workflow

The risk management process of risk tracking and monitoring happens end-to-end in the risk portal. Here the risk owner plans for mitigation and contingency, perform the cost benefit analysis and implement the mitigation plan. The risk assessor is then supposed to review the effectiveness of mitigation planning and decide whether to close the risk or send it back for rework to the risk owner.

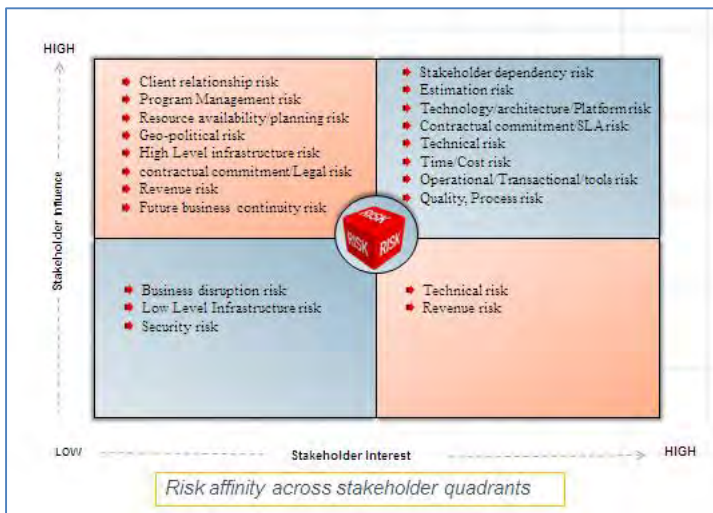
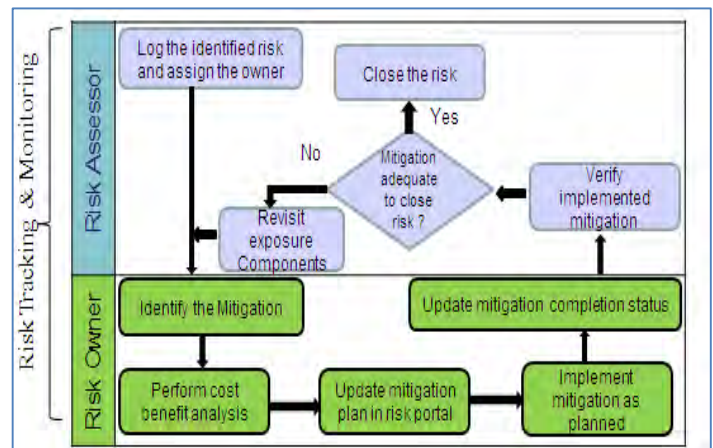
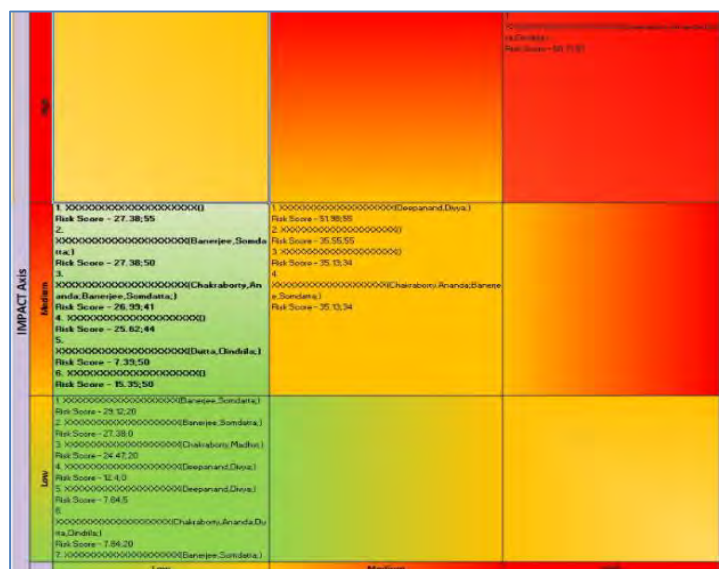


Diagram of Risk management across ELC and Stakeholder wise risk distribution

Once the risk analysis was conducted at the very beginning of the program, organisational risk management process was employed with appropriate customization to meet our current engagement needs. Risk identification was carried out through different assessments and reviews across the ELC (such as “Deliverability Assessments”, “CDCC”, “Program Governance Reviews”, “Compliance audits”, “Project kick-off meetings etc.). All identified risks were then logged into the organisational risk repository (Risk Portal) with appropriate severity, priority and adequacy of control scores, known as “Risk Priority Number”. The entire risk tracking, mitigation planning and reporting mechanism was based on the identified risks priority number and their corresponding mapping in the stakeholder quadrant plot.



Risk portal workflow



Sample Risk Heat map

The program was categorized as critical based on its appearance in the risk heat map. The color coding logic is based on likelihood and impact scores derived from the risk assessment questionnaire.

The entire program execution was handled primarily from off shore locations in India. The strategies highlighted above on stakeholder engagement and risk management process are applicable not only in current IT project scenario but are also equally applicable in large projects executed across other domains. Proper application of effective stakeholder engagement along with proper risk management process should help seamless execution of projects, impacted due to lack of stakeholder engagement and commitment, be it in private sector or public sector Government projects in realizing “Make in India” initiative.

What Worked/What Didn't

Achievements

The successful implementation of stakeholder management and risk management framework enabled the engagement to benefit from the outcome. The risk of delay due to dependency on customer infrastructure and procurement team was anticipated early and Tablet (iOS) was procured from Cognizant internal team. Also, few of the implicit non-functional requirements like order refresh time; server performance was anticipated during design phase itself. Regular and transparent communications and feedback from all stakeholders at different stages of engagement life-cycle helped immensely in removing most of the impediments.

The engagement was delivered with no show-stopper issues and no production roll-backs in the entire deployment life-cycle with no schedule deviation. The application was successfully launched as planned on the eve of Diwali across all 26 cities in India.

Improvement Opportunities

- To define and form a dedicated Risk Management Office (RMO) for early detection and seamless mitigation of risks during the engagement lifecycle.
- Need for end-to-end ELC management tool such as Jira across the board for requirement tracking, clarification, code integration and review, defect tracking and detailed dashboards for communication transparency.

Lessons Learnt

Stakeholder engagement improved the quality of the decision making process which lead to more focused results and also reduced product revision cycle.

Stakeholder engagement also helped to identify the risks in early stage of the engagement. The focused approach of all the organisational stakeholders to identify a critical engagement, its delivery potential and then come together for a common objective and successful outcome was very refreshing.

The typical lessons learnt from the exercise are:

- Effective stakeholder engagement improved the quality of decision making
- Reduced product revision cycle
- Early and timely risk identification and effective mitigation
- Ensured Communication transparency across all phases

Any Other Aspect

Cognizant risk management paradigm shows the different activities composing program/project risk management. Apart from leveraging the time-tested organisational framework on risk and stakeholder management, the general best practices in application development such as walkthrough, review and approval of the mock-up screen with the customer IT and business users, revisiting the estimation even after design finalization and production deployment of the MVP (Minimum Viable Product) much before the Go-Live date allowing business UAT and acceptance worked immensely on the success of this development endeavor.

References

1. Cognizant's Risk Management guideline
2. Cognizant's Stakeholder Management guideline
3. Cognizant's Engagement lifecycle model

Session III

Technical Tools & Trainings on Project Management

Session III - Technical Tools & Trainings on Project Management

Session Chair:

Galahad Franklin

Director, Product Marketing, Project and Visio

Microsoft India

Project management is a key skill of our times and formal, high quality training is essential to speed up learning and avoid costly mistakes. At the same time the focus these trainings should also be to build organisational capabilities in Project Management.

This session is about range and diversity in project management training requirements, efficacy of standard modules as well as customized components, training effectiveness assessment, building capabilities at the community level to ensure project sustainability, and leveraging technology for project execution and delivery.

Building Project Management Competencies: A Govt. of Karnataka- PMI Bangalore India Chapter Initiative

Lt Col L Shri Harsha, Retd
PMI Bangalore India Chapter

Category of Submission:

Building Project Management Capabilities in Government

The submission explains how the Government of Karnataka in partnership with PMI Bangalore India Chapter has initiated a program to educate government officials on the need for adopting good project management practices to deliver quality results in a timely manner.

Authors' Details:

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Author's Role in the presented case study: As Subject Matter Expert, Involved in the capacity of Main lead on behalf of PMI Bangalore India Chapter

Activities done by the Author personally are:

- Stakeholders interaction and Requirements identification
- Content Development
- Delivery of training, and
- Post training management

Abstract

Setting up matching infrastructure to support economic and social activities, critical for the growth of a nation, is an essential ingredient for the successful implementation of the “Make in India” movement of the Government of India. The responsibility of creating infrastructure is vested with the Government and the government discharges this responsibility by undertaking projects, both directly and through the Public Private Partnership (PPP) models. Therefore, timely delivery of project becomes critical not only to fuel economic growth but also to maximize the value of public money. It is in this context, that the Government of Karnataka realized the need to educate all government employees on the fundamental of good Project Management practices and adopting the best practices in the profession into the functioning of the government.

Case Background

With the current record of the Governments in professionally managing projects, both at the Centre and State levels, there is ample scope for improving these

competencies amongst the employees. The status report of the Ministry of Statistics and Program Implementation, GOI, for the year 2013 – 2014 reports a cost overrun of INR 1,82,478.8 crores (19.3%) and time overruns in 35% of the projects costing INR 1,13,950.9 crores (23%) to the national exchequerⁱ. The trend has been the same in the earlier periods also, which continues to be a cause of concern to the administrators. Therefore, controlling this non-productive expenditure of public money is not only a major challenge but also becomes a decisive factor for good public governance, because these savings can be productively employed to build world class facilities to support the growth of the economy. The Govt of Karnataka is also facing a similar crisis of time and cost overrun projects draining the treasury of scarce monetary resourcesⁱⁱ. The lack of project management skills amongst the government employees was a bottleneck and a need was felt to augment the sameⁱⁱⁱ. Since even social initiatives are undertaken as projects, the variations of the knowledge of project management, as applicable to various departments, becomes essential. Having appreciated this fact, Govt of Karnataka took an initiative to train their employees in Project Management.

Approach Taken

Government of Karnataka established the Fiscal Policy Institute (FPI) in 2007 to strengthen the Fiscal Responsibility Act, 2003^{iv}. To translate the vision of FPI, which is “enhancing quality of human capital engaged in public service delivery, the outcome of which enhances their efficiency, promotes a habit of adherence to macro-prudential fiscal norms and ensures value for money to citizens for all time”, FPI has adopted a multi-pronged approach. One of the major activities undertaken by FPI in this direction is to conduct training in various disciplines which facilitates capacity building amongst the government employees. Effective project delivery being the critical key to “ensure value for money to citizens for all time”, FPI planned to conduct training on project management and reached out to PMI Bangalore India Chapter (PMI) to support them in this endeavor.

The approach adopted by for this was two folded – Strategic and Operational. On the strategic level, the buy-in of all stakeholders was ensured by the top down approach, with the Secretary – Finance, communicating to all departmental heads on the need to adopt good project management practices.

Partnering with PMI to bring on board seasoned and committed practitioners with exposure to functioning of government bodies, and had expertise of employing the

best Project Management practices, was leveraged to increase the learning experience.

It was also decided to launch a pilot program for the works departments and based on the experience and feedback, programs for other departments are planned and will be launched in a phased manner. By having a mixed group of participants from all levels of the hierarchy for each workshop it was planned to ensure that a joint consensus and understanding of the concepts is established. This also intended to highlighted how the same subject is perceived and approached at various levels, create awareness of the problems faced by one another and brainstorm to agree what systems can be established to support each other's functioning.

Operational tasks of developing customized training programs on project management and conducting them was delegated to PMI. It was decided that while the basic content will be the same, department specific examples, case studies and exercises will be used to highlight the relevance and applicability of project management principles to activities typical to the respective departments. The plan was to conduct a basic course for understanding the fundamentals and follow it up with an advanced training where the finer intricacies of project management are discussed in the context of the projects being executed by the departments.

Work Done

In Aug 2012 a kick off meeting was held, which was chaired by the Director FPI and a high level requirement document was prepared. This was circulated amongst the different levels of functionaries of the various departments engaged in projects execution and the Revenue departments for review and discussions during a workshop scheduled in Oct 2012. By Sep 2012, the team from PMI and FPI interacted with various departments to collect, and refine the requirements so that the scope of the training could be formulated and presented to the stakeholders during the workshop scheduled in Oct 2012.

During the month of Oct 2012, a half day workshop facilitated by the PMI team was organized and was chaired by Secretary – Finance to impress on all departments the importance of this drive. The requirements identified by the team were presented to an audience consisting of government officials across the entire spectrum of the hierarchy. The objectives that were intended to be achieved by the training, the duration of the training and the proposed content were deliberated, further fine-tuned by discussions and interactions amongst these strategic, executive and operational level executives.

By Jan 2013, the team from PMI Bangalore India Chapter had developed the customized training content based on the functioning of government bodies and incorporating

the fundamental Project Management Body of Knowledge (PMBOK). The draft training program and training content was circulated to senior executives for their review, comment and approval. Based on the inputs received from various stakeholders, the content was reviewed, and finalized.

First training program for 29 officials was successfully conducted from 16 – 18 Apr 2013. The feedback was encouraging and suggestions for improvement were deliberated before incorporating them into the content. Till date a total of four training programs have been conducted, the other three being in Jun 2013, Nov 2014 and Jan 2015.

The need to develop a further customized training for the Treasury officers was indicated by FPI and in Dec 2014 a Kick off meeting to identify training needs and develop training content was held in FPI premises. The draft training program has been submitted for review and comments of the Department officials.

The functioning of the Government has to be customized to the needs of the various stakeholders, thus making it unique. In this context a “Project” approach will be the ideal strategy. There was a need to remove the misnomer that the term “project” refers only to activities that create physical infrastructure and hence “project management” was restricted only to construction activities. The elucidation any result which is “unique” in the context of the stakeholder needs is a project and thus delivering services are also “projects” was an eye opener for most of the participants. In the light of this new understanding, the relevance of “good project management practices” to enhance the quality of the services was appreciated. The creation of this awareness of the applicability of good project management practices to even daily functioning of government departments can be replicated across all states to improve the quality and deliver value to the stakeholders.

What worked/What Didn't?

What Worked?

The top down communication gave the required impetus to the entire exercise and the need analysis was done to almost 100% perfection. There was whole hearted participation by the members of various departments in identifying the gaps without any inhibitions, which enabled the team to align the content of the training to the needs of the executives. This also ensured full nomination to the pilot program and subsequent programs by the departmental heads.

The exercises on project management concepts in which the participants had to prepare project documents based on the learning in the training was intellectually challenging to the executives. This generated interest,

ensured whole hearted involvement and enhanced the learning experience.

The focused discussion on the Work Breakdown Structure (WBS) and its importance for the entire gamut of project planning and execution was an eye opener for most of the participants.

What didn't?

The activity of discussing case studies based on individual experiences of the projects that they had worked on was not effective. Two reasons have been identified as the probable cause for this – the hesitation to express that they were in charge of a situation which they could not handle, or because of their inability to express it in project management parlance.

Assignments which the participants had to do in their rooms before coming to class the next day was not successful. There was a general reluctance amongst the majority of the participants, especially, the senior lot of employees, to search for information and enhance their knowledge. They preferred to discuss the assignments in the class. This was removed from the third program held in Nov 2014.

Lessons learnt

The need to emphasize more on risk management was felt due to the generation gap between the employees, which has an effect of divergent thinking. While the risk taking attitude amongst the older generation is balanced, the younger generation are either risk averse to avoid any blemishes on their career, or risk seeking, who throw away caution to the air, either of which is not advisable when dealing with public money.

Stipulating guidelines and criteria for nominating individuals for the training program needs to be clearly defined. There was a specific case where the same individual was nominated for the course twice by different departments, and two individuals who were on the verge of retirement in less than six months had also been nominated.

Reliability and adoption of the best practices recommended by PMI into daily functioning is challenged by the government employees. Therefore, to build confidence in these systems, real time examples where these systems have been experimented with by teams have to be discussed during the training to highlight the value addition for successful project completion. As a result, these trainings cannot be conducted as a “run of the mill” training program, and facilitators should be prepared for intellectual interactions. Facilitators should have adequate ground experience to withstand these intensive and challenging questions, flexible to move from the structured training plan but yet maintain control and focus on the objective

of the training session and most importantly, have a high degree of patience.

A need was expressed to provide the support by experienced project management professionals to the executives while they experiment with the processes defined in PMBOK at their respective work places.

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Project Sustainability Management through Stakeholder Engagement and Capacity Development: The Case of Jalswarajya Project

Dr. Mona N Shah and Prof Ramakrishna Nallathiga
National Institute of Construction Management and Research, Pune

Category of Submission:

1. Building Project Management Capabilities in Government
2. Quality of Stakeholder Engagement and Risk Management imperatives in large projects
3. Ensuring Project Management Expertise of executing agencies and sub-contractors

The case submission features the experience of ensuring project sustainability through participation of the community and other stakeholders as well as their capacity development in the case of a large number of rural water and sanitation projects in Maharashtra State. It outlines the process followed for the same, especially capacity development plans of the project entities, as well as proactive stakeholder engagement in the project's life cycle. It also discusses how this approach of project management has helped to reduce the project risks.

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Author's Role in the presented case study: Independent Observation and Evaluation of the Project

Capacity in which Author was associated with the case being presented: Academic researchers with active research interests in Project Management area

Activities done by the Author personally are:

- Understanding the project scope, structure and development process of *Jalswarajya*
- Personal interaction with a cross-section of project stakeholders where the project was functional
- Evaluation of project success through the survey of project beneficiaries where *Jalswarajya* was operational
- Documentation of the experience of the project and its impact on the beneficiaries and other stakeholders

Abstract

Rural Maharashtra suffers from deficient Water and Sanitation (WATSAN) services. Previous WATSAN projects were less successful, due to the absence of community participation over the life cycle of the public sector projects. In the *Jalswarajya* project, the Government of Maharashtra made a radical shift from a 'supply driven' to a 'demand driven' project delivery strategy; foregoing the 'top down approach' in favour of the 'bottom up approach'. The villages had to go through a stringent prequalification in order to become eligible to obtain the 'water deficit free' and 'defecation free' status. It was a stakeholder-led, service delivery driven, sustainable project. It focused on project stakeholder management using the process of – Identify, Analyse, Prioritise, Engage and Control, and empowerment of stakeholders through the entire lifecycle of the project.

The *Jalswarajya* project placed high emphasis on close communication with stakeholders, engaging women, and vulnerable sections and vigorously training them. As a result, novice villagers learnt to prepare detailed project reports, procure goods and work; supervise the civil works; keep accounts and make payments to contractors; and run their own water supply and sanitation facilities. It was a unique and exemplary project executed using project management principles like stakeholder management, scope management, time management, human resource management, quality management, communication management, risk management and procurement management. 'Problem-solving' capacity of the community improved due to a process based approach using planning, scheduling and milestone-based target achievement. Moreover, systematic capacity-building ensured that the participating communities developed project management capabilities. The assets that were created during the project are owned and managed by the community, making the project sustainable. It is also acknowledged as a benchmark project that was replicable in the Indian subcontinent and other states of India.

Case Background

The historical experience of the Water supply and Sanitation (WATSAN) services in the rural areas of Maharashtra despite the long experience had been disappointing. Large irrigation projects that did not always help to ensure adequate potable water to the

residents had led to a general sense of hopelessness amongst the village communities. The most affected by the severity of the shortages were women, children, deprived sections and the old and aged. One of the shortcomings of earlier WATSAN projects' performance had been diagnosed as the lack of involvement of the stakeholders i.e. the beneficiaries of the project. Moreover, the lack of community participation in operation and maintenance (O&M) stage of the earlier programmes rendered WATSAN initiatives to die out after a period.

It is on this background that the Government of Maharashtra decided to change its approach from the traditional 'top down approach' in favour of an 'innovative participatory approach' to rural water supply and sanitation. A government resolution was made to incorporate an innovative community driven approach for the provision through *Jalswarajya*. *Jalswarajya* Project, undertaken by the Government of Maharashtra received technical and financial assistance from the World Bank ensuring water and sanitation services to the vulnerable rural households while institutionalising decentralised rural water supply and sanitation. This massive project covered about 2800 Village Panchayats (VPs) covering 7 million people and 1.12 million families in Maharashtra State.

Approach Taken

Jalswarajya Project emphasized upon engaging the stakeholders at all major stages of a development project – planning, procurement, execution and operation & maintenance. The project development cycle clearly incorporates community and other stakeholder participation beginning at village level. The major stakeholders of the programme were identified and their role was clearly defined in the engagement process. The structure of people engagement and project organisation structure was drawn up with great detail in the Project Vision Document. It laid down detailed processes for decentralisation of decision making so that the project proposal begins at the grass root level (rather than imposed on community by official machinery), gets executed and monitored by the community institutions, spearheaded by the Village Water and Sanitation Committees (VWSC).

The *Jalswarajya* initiative is distinguished by the unique five pronged approach:

- *Capacity building and awareness raising of the community*, especially women/ underprivileged as a preceding, simultaneous and post installation activity running throughout the various stages of the process
- *Strengthening of village local government* - technical and organisational capacity
- *Institutional strengthening of programme at district level*, especially human resource development

- *Sector development* through knowledge/technical support and community infrastructure management
- *Women's empowerment* through the representation of women in VWSC and other committees

Figure 1 shows the broad approach taken towards stakeholder engagement in project management in the case of *Jalswarajya* project.

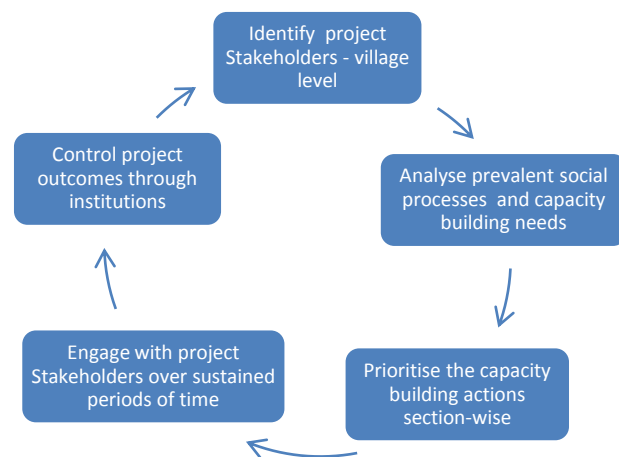
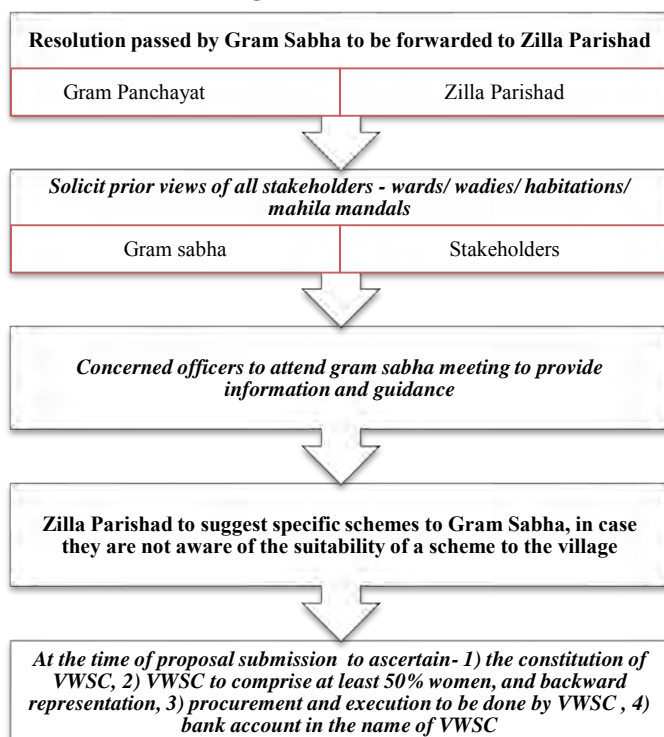


Figure 1: Stakeholder Engagement process of *Jalswarajya* project

Work Done

As a part of the project, the first step taken was to identify the project stakeholders and to formulate a process for their engagement and capacity development so that the long-term sustainability of the WATSAN project is ensured. Other work breakdown structures were prepared in relation to the stakeholders. For example, the two preceding tasks namely of ground water table assessment and household survey were to be carried out keeping in mind the characteristics of the village water management history and the extent of a village's social integration before submitting the report to the Zilla Parishad/WATSAN department. Later, in addition to the water management report and social integration status, the stakeholders' previous record and commitment to water conservation and sanitation were checked after which the subsequent steps of the plan were chalked out. Refer Exhibit 1 on the *Jalswarajya* initiation process. The entire process of stakeholder engagement is rather unique in the *Jalswarajya* project, which serves as a useful reference for water and sanitation and other similar large public projects in other Indian States.

Exhibit A.1: Process to Initiate the *Jalswarajya* Process in a Village



The major stakeholders identified in the process include:

- Women and Households below the poverty line and tribal communities
- Public departments of Govt. of Maharashtra – ZP
- Community Based Organisations – women, youth, SHGs, credit societies etc.
- Local government bodies – Gram Sabha, Gram Panchayat, VWSC,
- Funding Agencies

The following sections discuss the stakeholder engagement and management processes more in detail, as followed in the *Jalswarajya* project, including the major components of stakeholder management in the context of project management. They are useful steps that could be replicated in other such large public projects by the State government with/without donor agency funding support.

The stakeholder management of *Jalswarajya* project involved two major components:

(A) Strengthening and Capacity Building

- Raising Awareness and capacity building of women/ underprivileged/ tribes
- Village Panchayat (VP) - technical and organisational capacity. Detailed Project Report (DPR) preparation, costing & accounting, calculations of per capita capacity, locating the pumps and network lines, repairing pumps, O&M

- Women's Empowerment – 50% representation of women in VWSC/Block level Steering Committees (BLSC)/ Women Empowerment Fund (WEF). Women learned to make DPRs, calculate water requirements, and hold meetings and record the minutes for future follow-up.
- Jalmitra -A woman trainer, problem solver, as well as trained technician to handle day to day queries and hand hold the villagers through the whole process.

(B) Stakeholder Communication Management

Stakeholder communication was achieved using three different but complementary initiatives:

(i) *Continuous Meetings* – Bottom Up and Top Down of officials with villagers, Supporting Organisations (SOs) with the villages, VWSC and VPs

(ii) *State level capacity building exercise based on priority/transparency*

- Strengthening VPs
- Strengthening local groups (Mahila Mandal, Youth Groups, Other Groups, para professionals)
- Strengthening VWSC
- Strengthening Gram Sabha

(iii) *Informal meetings, posters, street plays, wall paintings, pamphlets and films* – documentaries and showing of Hindi movie 'Swades', Prayer groups, 'prabhat pheri' and radio talks. Additionally, for easy demonstration of the process, visits to other places were organised. Groups from visiting villages were made to communicate and ask questions to the demonstrating villages regarding the process and difficulties encountered and grievances redressed.

Community participation process was drawn up such that the water supply and sanitation project proposal was mooted at Gram Panchayat first, followed by a dialogue with other stakeholders through Gram Sabha. Both village and district level officials as well as local governments work together towards making a resolution that moves from village to district to State government. Community organisations and social audit committees were included in the consultation and their roles were well defined. The VWSCs were formed with the representation of all communities in the decision making and implementation. All of these initiatives also reduced the risks associated with the project stakeholders at planning and execution stages. Refer Exhibit 1.

Figure 2 shows the Communication/ Engagement Importance Matrix of the *Jalswarajya* project.

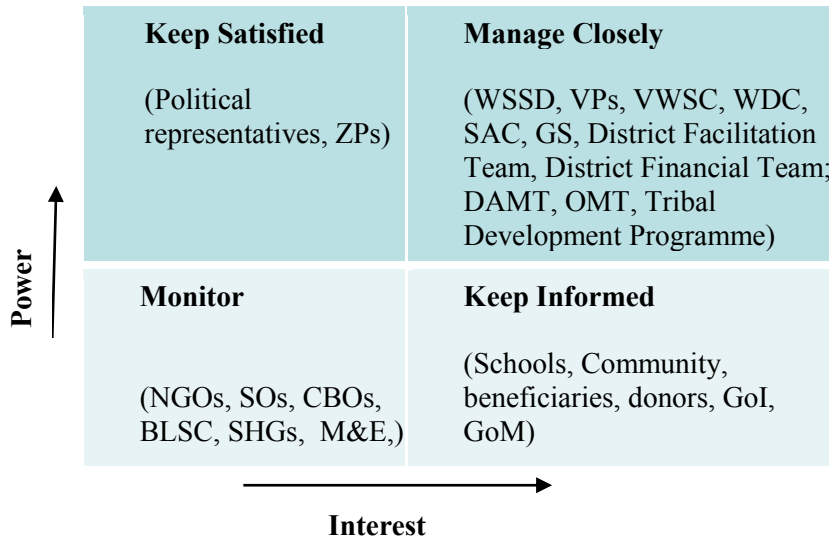


Figure 2: *Jalswarajya* Project Communication/Engagement Importance Matrix

The *Jalswarajya* project comprised the following aspects:

- Selection of needy villages/ settlements
- Stakeholder communication and negotiation
- Community capacity building
- Stakeholder involvement in management

Further, the *Jalswarajya* project ensured that the project activities under the components described above would result in achieving various objectives at various stages of the project management. The following project management principles were enshrined in the *Jalswarajya* project:

- Scope management
- Time management
- Human resource management
- Quality management
- Communication management
- Risk management
- Procurement management
- Stakeholder management

Figure 3 shows the impact of Stakeholder and Communication Management of *Jalswarajya* in various life cycle stages in the project management principles.

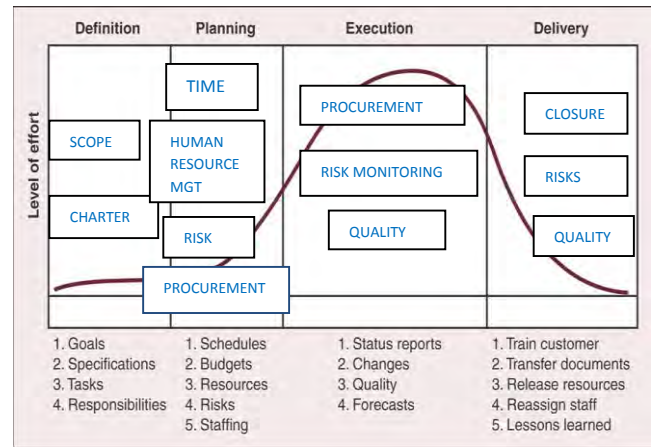


Figure 3 Stakeholder and communication management at various stages of *Jalswarajya*

What worked / What did not?

Jalswarajya project classified as a social development project, spanning a massive geographical area and millions of people, has clearly brought focus on improving the common man's ability to conceive, execute and manage projects with project management training efforts. The success of *Jalswarajya* is rated high in ensuring long term sustainability as it places the project ownership in the stakeholders' hands.

Due to well defined and scripted processes covering proposal selection, project planning, technical assessment, procurement, implementation, Operation and Maintenance (O&M), *Jalswarajya* stands out as an exemplar of social development using project management principles. The lifecycle view of the *Jalswarajya* project ensured longer life of the assets generated from the project and expanded the range of its services. The project stakeholders received enough support through capacity building initiatives and were empowered to take active role in the management of their own water supply and sanitation needs.

The following can be highlighted as the success of *Jalswarajya* project:

- It is declared successful at closure by the World Bank
- It continues to operate in Maharashtra
- Acknowledged as a benchmark project that is replicable in other South East Asian countries
- Innovative demand-driven approach, based on community 'ownership' and participation through Project Level Committee (PLC)
- Community ownership of the asset reduced O&M problems
- 'Problem-solving' capacity improved due to process based approach and milestones achievement
- Systematic capacity-building ensured that participating communities developed project maturity

The project however could not avoid the inevitable bureaucratic procedures associated with approvals. The controls on project approvals could have been vested with stakeholders rather than government. Also, there was no forum for dialogue across the various groups across the villages, which would have let to better spread of know-how and process. Likewise, the documentation of good practices has not emerged, which would have been more useful for replication. Documentation of such experiences as done in some other donor funded projects e.g., CGG (2008), proves to be very useful for quick replication in other sectors and regions.

Lessons learnt

The *Jalswarajya* Project has shown that community capacity development and empowerment can make a positive impact on project outcomes through their active participation in the various stages of project. It also ensured the success of the project and the sustainability of the initiative through active engagement of the stakeholders in project development, execution and monitoring. The organisation of capacity development of various stakeholders has also given experience to the public agencies on planning and sustaining it in other such/ similar programmes

The community and beneficiaries of water supply and sanitation programme gained in terms of the capacity to do activities across the project's lifecycle i.e., planning, procurement, execution and monitoring. Another positive fall out was that the village women cultivated new competencies and became technicians and entrepreneurs.

The following are some of the lessons learnt with reference to project management:

- Focus on *PEOPLE* for success and long term sustainability of projects
- Stakeholder Empowerment and Involvement in project delivery and O&M is very useful
- Well- defined stakeholder engagement processes are required for *proposal selection, project planning, technical assessment, procurement, implementation, operation and maintenance*
- Bottom up planning approach has led to *longer life* of asset and *expansion* of range of its *services*.

Any other aspect

Jalswarajya project also showcases how some of the project risks that were effectively addressed through a well-planned capacity development and participation programme in order to engage, develop and empower

the stakeholders. The various risks that were dealt with in the process include:

- risk of project failure,
- risk of poor outcomes/ risk of conflict among stakeholders,
- confrontation risk arising from the lack of awareness,
- post-project development risk of sustainability of the initiative.

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Cloud Computing for Agility in Government

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Category of Submission:

1. Building Project Management Capabilities in Government
2. Project Management in the new age of technology

The subsequent sections of the paper talk about initiation, planning and execution of an Information Technology project using new age technologies (cloud technologies in this case). This paper highlights requirement and approach for paradigm shift in project management approach for new age technologies. This paper also highlights the advantage of creating a matrix organisation model and proposes how capacity building can be done in this scenario.

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Activities done by the Author(s) personally :

- Initiation / conceptualization – concept note
- Feasibility study (Technical and Financial)
- Detailed Project Report creation & Cost/Benefit analysis
- Execution model including outsourcing planning
- RFP (s) drafting and execution of procurement process
- Vendor selection, contracting and on-boarding
- Program management, monitoring and control including continuous improvements
- IEC and program roll-out

Abstract

In last decade or so, Governments in India at National and State level are trying to improve governance through eGovernance. For this purpose NeGP (National eGovernance Plan) was created initially with 31 Mission Mode projects (MMP). These were

classified into Central, State and Integrated projects. As all these projects were targeted to build a robust IT systems over which various citizen services provided through various governance processes were supposed to ride. All these Mission Mode Projects were large programs which had technical and program management complexity. A large amount of IT infrastructure was also proposed to be created as part of these MMPs. In addition to these MMPs, State government also conceptualized complex IT programs targeting citizens' services. In other words, large number of IT projects are being undertaken. Each project is undertaken as a silo and all aspects of the project right from IT infrastructure and application design are implemented as silo.

Due to this silo-ed approach, unnecessary redundant IT infrastructure is being created which remain grossly under-utilized. This is primarily due to failure of project, sizing of infrastructure done on five year peak utilization. A general principal of no single point of failure and disaster recovery infrastructure same as data center size is applied for sizing the infrastructure. This results in provisioning of four compute resources where only one is used at any point of time. It has been observed that at any point of time IT infrastructure resource utilization is less than 10% of provisioned infrastructure. This is sheer wastage of resources procured from taxpayer's money.

Another issue faced across the eGovernance projects has been of having adequate and well qualified manpower resources to manage the state of art IT infrastructure. Finding resources under each project cutting across various infrastructure domains has been a challenge. Low expertise resources are unable to effectively manage this and hence increases the risk of failure of project.

This paper brings in a revised approach of creating and managing IT infrastructure for eGovernance projects. It highlights how consolidation of infrastructure is done and is helping government in Haryana. IT infrastructure across projects are treated as common IT infrastructure and there is no delineation based on projects. Use of latest technologies like virtualisation and Cloud computing has helped in achieving the goal of efficient utilization of resources. It has also brought in agility and reduced procurement time for IT infrastructure thus bringing down lead time to roll-out an application.

Treating IT infrastructure across projects as common infrastructure also needs to be backed up with good

manpower resources to manage the same. For this purpose, Common IT Infrastructure management Team (CIMT) was created in Haryana. This team had resources associated with various projects and helps departments right from planning stage to execution and monitoring phase. This team has resources cutting across various domains like compute, storage, networking, backups, disaster recovery etc. The experience has been very satisfying as it is easy to manage single large pool of resources rather than managing it project wise.

Case Background

The IT ecosystem is highly complex in Government, with projects spanning into multiple years with outlay of crores of rupees. Complexity is further increased by diverse stakeholder environment including politicians, bureaucrats, Government functionaries, various Government agencies and public at large. During the past few years, Government has been focussing a lot on eGovernance projects. It is widely realized that expectations from Government are increasing and eGovernance is the only way to meet these expectations. Government is continuously conceptualizing and trying to roll out complex IT programs. Meow initiative was taken in 2006 when Central government came up with National eGovernance Plan (NeGP) under which there were 31 mission mode projects classified as central, state and integrated projects. These projects were taken as silos and managed through line ministry of central or state government with assistance from Department of Information Technology.

Apart from technical and program management complexity of large programs, there are limitations in Government because of long procurement process. Involvement of public money forces adoption of stringent risk averse procurement process. This is further complicated by lack of enough internal technical resources and dependency on outsourcing model for meeting all eGovernance needs. This leads to complex execution environment where failures outnumber success and it becomes extremely difficult to realize optimized benefits from eGovernance efforts. In today's digital world, quick results are warranted. Stakeholders want to see their ideas implemented in weeks and not years as is presently the case in Government. Recent advent of cloud computing technologies have presented an opportunity to solve some of the mentioned critical eGovernance problems. Considering immense benefits these technologies can bring, ideas were presented to Haryana Government. Government positively accepted these ideas since they were provided with an opportunity to leverage technology based approach to bring agility in the way complex eGovernance programs are managed. Cloud computing ideas were

segregated in different streams and incorporated in separate initiatives as per envisaged needs.

In this paper, 3 critical problems are identified along with their solution by adoption of cloud computing technologies.

i. Infrastructure – painful backbone

- a. The traditional way of executing turnkey eGovernance projects includes, Requirements capturing, Application development, Infrastructure provisioning, Capacity building and change management. Here we talk about infrastructure and capacity building. Generally, due to Security reasons eGovernance application are hosted in Government data centers. Typically, in eGovernance, applications are co-located herein for each project Servers, storage, networking and other equipment need to be brought in by executing department. Individually, each department has to go through cumbersome procurement process spanning months. There is lots of pressure at the planning stage to get the estimations right as any shortfall will lead to long procurement cycle. This leads to every department over-provisioning resources as planning is done for 5+ years as a one time activity. This leads to wasted resources and lock-in of obsolete technology for a longer than desired period.
- b. Each department brings their own hardware from different technologies and vendors. This creates interoperability issues and lack of enforcement of standards as is desired in Government assets.
- c. Normally, what we have seen that there is requirement of no single point of failure in infrastructure so we procure double of peak requirement of next five year. We normally see that the utilisation of Hardware is in single digits. This adds to the cost of project and incase project fails all investment in infrastructure goes down the dumps. If we add Disaster recovery which is 100% replication you can estimate what kind of oversizing is done.
- d. The time taken for creating the infrastructure required for the project spans to around 6-9 months. By the time infrastructure is created and put to use, it becomes obsolete.
- e. Another painful point is to have the right kind of manpower resource to manage the infrastructure of the project.

ii. Why re-invent the wheel?

There are more than 100 departments / boards / corporations and other entities under Haryana Government and each project goes through the same process and spend same effort and over provision same way.

iii. Developers need tools to complete the work

Haryana Government has setup a division with in-house capacity of software engineers for design and development of an eGovernance integration platform. Objective of this platform is to reap benefits of integrated applications for improving service delivery to citizens. Because of its nature, this project included multiple teams working on applications spanning disparate technology platforms. Being an integration project, development and roll-out was done using agile methods. Each application was brought in for integration for a short period of 3-6 months and after integration next application was brought in and this cycle continued.

There was need to provision and de-provision development platforms quickly as teams come and go. It was not possible to do this quickly in cost effective manner using conventional methods.

Approach Taken

i. Creation of Common IT Infrastructure Management team (CIMT):

CIMT was created keep in view to manage common IT infrastructure as managed services for various eGovernance projects. The prime activities of CIMT were:

- Manage State Data Centre
- Manage State Wide Area Network
- Adoption of New Technologies

Sub-groups were created for above three activities. Resources were hired as part of CIMT on contractual basis on market salaries. To manage day to day operations, a managed service provider was hired.

The CIMT has 11 manpower resources at various level and expertise. These resources get involved in various projects and help the project team in matters related with Infrastructure. This is an attempt to move from functional organisation to matrix organisation. The government is structured as a functional organisation and that is one of reason why project fails. Moving from functional to matrix organisation will help in managing projects. Once the project is over, resources are allocated to other project.

ii. Infrastructure as a Service (IaaS) – Assisted-service mode

To reduce the over provisioning of infrastructure and time taken for procurement, it was proposed to adopt IaaS (Infrastructure as a service). The existing additional capacity of servers and storage was brought under cloud infrastructure. In first go itself more than 110 Vcpu and 3 TB of storage was created. Small applications like MSME registration, CM greivance portal, Hafed, HSIIDC and Health portals were

provided resources from this pool. It took less than a day for us to provide resource for the same. Departments did not require to procure server and from existing pool itself we were able to provision such resource.

Our future plan is to pre allocate some resources to the department and department can self provision from their pool. This will help by providing greater levels of self-provisioning and automation, becoming more nimble, reduce operating costs, improve application performance, and better allocate their compute resources. It was envisaged that it will enable Government to more flexibly scale their IT infrastructure while reducing the administrative burden on IT organisations.

After evaluating various models (Public, Private and Hybrid), it was proposed to move ahead with private cloud. Different cloud providers were evaluated and Eucalyptus Inc was selected based on detailed technical evaluation including proof of concept deployments. Before full-fledged private cloud deployment, a proof of concept spanning few months was conducted with help from Eucalyptus technical team. This was really helpful in deeply analyzing technical aspects of the platform and to gain deeper knowledge from technical team. This helped in refinement of roll-out model. In Parallel, RFP was drafted for enterprise wide cloud rollout with provision of managed services.

We have improved upon the utilisation of SDC and with more and more applications coming on cloud we generate additional capacity. As per our rough calculation, with existing server in data centre future needs for compute and storage of data centre can be catered.

iii. Evaluation of Projects leveraging Cloud

The other challenge which was faced was how to evaluate a project proposal and award contract to a third party in cloud environment. For example a department floated a RFP for development of application. One company comes with some technology that requires only 3 servers, other comes with some other which requires 10 server. In such a scenario, the total cost of ownership of project for department varies drastically. So we devised a method to evaluate this.

Various infrastructure components which is required to run an application like compute, storage, Load balancer, Switch ports, backup etc. were listed. Each on this item was assigned a Cost indicative value i.e CIV. The CIV is based on monthly usage of each component. Each application bidder was asked to submit an infra. requirement sheet listing the component required and number of components.

Based on this total, CIV for each proposal was calculated.

Generally for IT projects in haryana we follow QCBS with 70/30 ratio between Technical and financial bid. Out of this 30% financial, 5% was for CIV and 25% was for financial quote. This concept was implemented in one project and it was observed that companies CIV score variation was huge.

With CIV, the department can now evaluate the bids based on the total cost of ownership. As per the plan, the implementing agency will get a credit of CIV quoted in their proposal. With better understanding of the project they can restructure their infra requirement within the given CIV. If they go beyond the total CIV, they have to bear the cost. So TCO for government remains same. No change requests in this regard. When project is initiated they can use less infra and save on CIV. So the implementing agency has more flexibility. If project gets delayed, they are free to not ask for infra and thus save on CIV which is finally money.

iv. Platform as a Service (PaaS)

For eGovernance integration platform, it was proposed to provide developer with tools and platform in PaaS mode where developers have access to tools of their choice quickly without going through long provisioning, approval and procurement cycle. Government also envisaged savings because of consolidation of licences.

Work Done

Project execution environment in Indian State Government is complex. There are stringent procurement rules, sponsors are bureaucrats with non-technical background and resistance to change is high. To mitigate these risks, execution was done in phased manner targeting small wins demonstrating visible benefits before scaling, initially outsourcing arrangement with existing partner was done until in-house model ecosystem was in place and procurement and evaluation method were tweaked. Below is detail of as to how step-by-step transition was made:

i. Roll-out of IaaS (Infrastructure as a service)

i(a) Proof of Concept (PoC) on private cloud in partnership with Eucalyptus Inc utilizing internal resources

i(b) Outsourced private cloud roll-out for long-term cloud strategy

i(c) As an interim arrangement till long-term strategy is in place, partnered with a managed service provider for hybrid cloud environment for immediate needs

fulfillment and promoted this model in large project outsourcing.

i(d) Self-service portal being created for auto provisioning

i(e) All licenses procured for Government of Haryana not for individual department

i(f) Centralized asset management being created for licenses

ii. Roll-out of CIV based evaluation model (SaaS)

ii(a) Implemented on one of 100+ crore project.

ii(b) Got this model approved by High Power Purchase Committee.

iii. Roll-out of PaaS (Platform as a service)

iii(a) Proof of Concept (PoC) in partnership with Eucalyptus Inc utilizing internal resources

iii(b) Rolled-out PaaS services in internal development being done for an integrate platform where team works in agile delivery model in disparate technology environment mostly utilizing open source technology stack

iii(c) devised model for long-term PaaS rollout for all the state-wide platform needs

What Worked / What didn't

Achievements

i. Infrastructure provisioning timelines reduced from months to minutes

ii. Standardization of infrastructure avoiding vendor lock-in

iii. Budget outlay shifted from Capex to usage basis opex model.

iv. Resources are allocated as required and called up. No financial impact due to infrastructure if project gets delayed.

iv. Auto-scaling and elastic provisioning of resources in self-service model

v. Immediate on-demand provisioning / de-provisioning of application development platform

vi. Reduction in licensing costs as license can be used across various departments of Government of haryana rather than one department.

ix. Centralized budgeting for infrastructure

x. With CIV and IaaS put together for one project, 50% saving on infrastructure is estimated. as per DPR cost was estimated as 40 crores which as per CIV is now around 20 crores.

v. Two large (100+ crore) projects already on this model; expected to GO-LIVE later this year

vi. Satisfied technical teams avoiding red tapism for infrastructure and platform requirements

vii. CIV model to be used in future projects to bring in level playing field for companies using latest technology. In earlier model, companies using latest technology was at loss and used to lose the bid.

Improvement Opportunities

- i. Complete dependency on one vendor for private cloud services in outsourced model increased risk, need to augment internal technical capacity
- ii. Standardization of requirements for eProcurement did not go well with all departments
- iii. Technology changes faster and because of contractual rigidity, adaptation in Government is slow. Need to augment technical R&D capability further internally to keep pace with technology upgrades

Lessons Learnt

- i. Complexity of licensing in PaaS environment. Until now PaaS rollout mostly done for open source technology environment.
- ii. Standardization of all requirements in IaaS for all departments is not easy. Process for standardization of requirements in place but it takes time, thus there needs to be scope for custom requirements in the architecture

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