

# Overcoming the challenges of implementation of enterprise wide initiative in state government run business – A case study with a state-run power utility

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Leveraging project management for excellence, growth and transformation



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## 1.1 Introduction

Transformation & excellence are two of the most sought after word in the Government run business across India today. Organizations who are formed by Government to work for the national economy and had been enjoying the patronage of government protection in different sectors have been positioned so far as the fulcrum of the industrial growth, are part of the modern India evolution. With the opening of the economy & growth of the country into a mature nation and with the growth of Private sector, which has led to increase in competition? Now the intellect at the national planning level feels the Job of Government is governance, and not to run industry. With the end of license raj and economic reforms in the recent years, privatization of PSUs and easing regulation to an economic environment which promote competition, is demanding organization to be efficient, Competitive and self sustainable. Even in the space of Public sector there is a huge difference in the operational efficiency, Productivity, bottom line etc. when it is compared between Maharatna, Navratna, Mini-Ratna and the one run by Central government and state government. With this changing scenario, the whisper is perform, compete or perish. Given this, the erstwhile state government departments who used to control the complete business like Power generation, transmission, or Distribution so as to say had to get converted into independent company with board of directors responsible for running the department as an enterprise, compelled to realize the need of competitiveness to be in the business in the long run. And with the governments motif of promoting more privatization has given the management of these organization to move away from conventional mindset of surviving with Government support with all lavish spending even though running with a negative bottom line. Many such companies as on date either has to be declared sick, or are surviving by selling own assets. In the infrastructure sector where government dependant on loans from international Financial institutions like the World bank, ADB, now driven by the strict norms by these FIs in terms of Operational efficiency parameters, system transparency requirements. With this reality now the think tank of such organization are finding ways and means to improve productivity, become more competitive, increase transparency, bring in accountability and adopting different transformation strategy to bring out radical changes in the way they have been functioning so far.

## 1.2 Bringing out transformation & Change

Change can be brought out to an organization, through organizational transformation, which are broadly of 3 types,

1. **Improving Operation:** To achieve a quantum improvement in the firm's efficiency, often by reducing costs, improving quality and services and reducing development time.
2. **Strategic Transformation:** The process of changing strategy seeks to regain a sustainable competitive advantage by redefining business objectives, creating new competences and harnessing these capabilities to meet market opportunities.
3. **Corporate Self-Renewal:** Self-Renewal creates the ability for a firm to anticipate and cope with change so that strategic and operational gap does not develop. Out of the above 3 types of transformation, the approach adopted by these government run enterprises mostly are a combination of 1<sup>st</sup> & 3<sup>rd</sup>, as at a strategy



level the control is still lying with the government in their case. And these transformation are brought by various strategies such as

- ◆ Transformation through Values
- ◆ Transformation through Organization Development
- ◆ Transformation through Reengineering
- ◆ Transformation through McKinsey's Plan
- ◆ Transformation through Competitive Benchmarking
- ◆ Transformation through Six Sigma
- ◆ Transformation through Kaizen Principle


### 1.3 Strategy Adopted by Government Run Business

All the above transformation strategy requires an organization wide initiative and calls for wide spread change in the organization. And the government run organization mostly going for the transformation through reengineering. Reengineering is revolutionary, challenging the operation and even existence of fundamental processes. It not only improves the old way of doing business, it seeks to create a new and better way. Which is otherwise popular as BPR or Business Process Re engineering and locally termed as **Badlo Purane Raaste**. This BPR exercises are carried out at the Structure level, Process level, Delegation of Power level on a pure Process terms. Or in case of smaller organization most convenient and popular method adopted is Information technology driven Process reengineering exercise to realign processes, improve process automation, increase transparency, reduce inefficiency due to redundancy by reducing no of approval level, improving infrastructure, by adopting industry best practices.

### 1.4 Issues & Challenges for realizing the Change

There is often a big distance between planning organization wide initiative, and actually realizing it. It is some what more prevalent in case of government run organizations. Some time these initiative remains at a vision state, and dragged for years and some even never see the light of the day. Schemes which are envisioned by thoughtful and go getter who are in the helm are finally conceptualized with lot of positivity in it, faces the challenges of a successful execution. These challenges are due non availability of

1. Proper infrastructure base for the execution of initiative,
2. Non availability of Qualified manpower at management position
3. Mindset of the employees because of set rules because of compliance issue
4. Resistance to change with the fear of unknown
5. Lack of ownership, commitment & will from local management for implementation
6. Lack of maturity of processes

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7. Different sets of people who visualize the initiative and who implement it.

#### **1.4.1 Proper infrastructure base for the execution of initiative**

When an organization wide initiative is certain basic infrastructure is expected to be in place, for example if a IT lead reengineering is planned for an organization, it is obviously assumed that basic IT infrastructure like Local area network in place, Computers are available, and people are conversant with basic computer usage, availability of corporate mail. Now if an initiative like an ERP implementation is planned with the assumption of the basic infrastructure, and if such infrastructure is not available and same is also not budgeted for the initiative then the ERP implementation can not just be completed because of the non availability of basic infrastructure even if the best of execution planning for the project is carried out.

#### **1.4.2 Non availability of Qualified manpower at Management position**


For executing the enterprise wide initiative, it is essential to have qualified manpower are available in strategic management position, who could make out the context of the initiative, in alignment with organizational objective, and day to day operation. In the government control organization, people climb up the ladder through ranks, for example someone who joined the organization say about 25 years before may not be having the basic qualification for the position what is required today, but because he has performed well over the years, he is currently occupying an important position. These Sr executive are used to certain policy & procedures, would very uncomfortable in adopting a new things, because of issue of bent of mind. Here things like adoption of revised management strategy could be a difficulty because of the inadequate understanding. So when it come to interpretation of things in proper perspective, it becomes a real issue, and implementation suffer due to this because it has to essentially pass through the specific position. And being a government organization taking action to support any such initiative is distant possibility.

#### **1.4.3 Mindset of the employees because of set rules due to compliance issue**

Employee mindset is an output of the value the organization imbibed with. This value set is developed over a period of time by use of set rules which are sometimes defined as early as 30 years before (**baba adam ka jamane se chala aa raha hey**) and may not be contemporary. And employee of Government organization are well aware about it, but the strong compliance related regulations of Internal audit, CVC guidelines, technical review committee force them to think on as is so is basis. Where as any such organizational initiative which is required for large scale changes demands the adoption of people with renewed mindset, or it becomes just impossible to implement any such initiative at the ground level.

#### **1.4.4 Resistance to change with the fear of unknown**

Resistance to change is as natural as our existence itself. Normally in case private sector organization this resistance is broken by the push of management. But in case of a Government organization the inertia of resistance to change is much more as compared to private sectors. Here people are absolutely sure about their job, and they are very much aware even if someone resists to change, nothing can be forced upon him. And secondly they lack motivation for any changes. To quote from my experience,



in one of my implementation one of the General manager questioned, if my people take all these pain to adopt the change what benefit as an individual they would get, because irrespective they are not going to be awarded with additional increment? Thirdly in the government set up because set process certain dynamics goes on while running the day to day business. Whenever any org wide initiative is introduced there is fear of unknown which grapples almost every one, “what would happen to my position”, is it going to be weaken in the wake of the change. Will I be going to loose the power I am enjoying right now? Will it alter my strategic position in the organization because of the change. Then even the best of implementation attempt of the Org wide initiative fails to deliver the results for which was conceived.

#### **1.4.5 Lack of ownership, commitment & will from local management for implementation**

Implementation of org wide inactive is majorly dependent on the ownership and wholehearted participation of the local management where actually it is supposed to be implemented. In case of government run org, because the vision are set the topmost level of the organization, who do not have access to the ground realities, in such case fate of every such initiative would be dependent on the on ground team. For example when management of an organization decided to stream line the attendance of the employees of their plant, and decided to implement Bio matrix system, with all pomp and splendor. The bio matrix system was procured and installed in the entry of each plant. But it was realized after a month that all employees are not using it, some even tried to sabotage by putting coal tar in the screen. In such scenario unless the local management takes pain to see whether people using the bio-matrix on daily basis or not, if there is some issue in the bio-matrix machine which requires rectification, the system could be dysfunctional in 2-3 months time. And the entire investment would go in the drain at the end of it. For doing this local management has to have enough will power in handling unions, use of peer review to see the system works properly in long run, and for that obviously they are not going to be rewarded separately for doing this. And in public service organization these kind of ownership are rare.

#### **1.4.6 Lack of maturity of processes**

Processes used in the state government run organization are old, and some are set as early as during the British time. And these are slowly changing with government regulation, but the process of change is slow. If an organization is implementing ERP, and the processes used there are old, and probably the processes are not matured enough to support an implementation of such kind. Means if revised process brings in online reconciliation on a real time basis, and organization process is going for reconciliation periodically like in the end of the month. Then it becomes essential to first change the process and then implement it, otherwise forcing an existing process in ERP system may not yield the best of results. For example when a consultant talks about a change in process and take it to process owner the first reply from the process owner is big no, with remarks like “ **Kal ka chokra humko process bataega, I have been doing this for 25 years and its running fine**” . Another scenario could be “ **yeh baba adam ka jamen se chala aa raha hey, isko badlna itna asaan nahin hoga.**” With this kind of situation the ERP implementation initiative may not bring in the result it could have brought otherwise.



#### 1.4.7 Different sets of people who visualize the initiative and who implement it.

One of the major reason according to me for failure of organization wide initiative in government organization is set of people who implement the initiative are different from the one who are part of the team which conceives it. However best documentation you do, in such kind of initiative it becomes practically difficult to capture the finer nuances which are essential and are the critical success factor of any implementation. Normally in government sector scenario the gestation period of approval of a scheme is long enough to see a change of set of people who are initially involved in conceiving the ideas, and could have used their passion to plan, either are transferred or got a role change, so they are not available at the time of implementation of the same. A new set of people when execute it, they merely try to execute the contract and things which are in black and white. So there the finer aspects which was probably thought out during the concept stage gets missed out during implementation.

Secondly the success of the initiative for the new set of people may not as emotional a reason as compared to the earlier set of people, to work that extra mile which the initiative demands for a successful execution. I have heard people saying **“let it be - I was never consulted while finalizing this, if it fails, let it be”**.

### 1.5 Case Study:

We will discuss a case study of State run utility company, where in the management set up a vision of moving towards excellence with transformation of entire organization, by going for implementing ERP across all their business functions successfully. And they not only successfully implemented the project as per initial planned timeline but in the defined budget. They also measured the performance of the implemented system with a value engineering study which objectively revealed, in which all area the organization had benefitted, what way, out of the implementation of the organization wide initiative.

#### 1.5.1 Background of the Organisation


Indraprastha Power Generation Co. Ltd. (IPGCL & PPCL) came into existence on 1st July, 2002 after unbundling of Delhi Vidyut Board (Earlier known as DESU) into six entities. The main function of IPGCL & PPCL is **generation of electricity** with an installed capacity of 994.5 MW and 3000 MW capacity addition in pipeline. There are 4 plants namely

- ✦ Rajghat Power station, New Delhi
- ✦ Gas turbine Power station, New Delhi
- ✦ Pragati Power Corporation, New Delhi
- ✦ PPCL- Bawana, New Delhi (Under Commissioning)

Total Number of employee – **1600+**

Annual turnover – Over **1500 Crore**





**Project Parivartan** : IT reengineering project with SAP ERP implementation in Plant & offices of IPGCL-PPCL & over a period of 10 Months. The purpose of the project was to improve the Process, people & performance of the Overall organization.

### **1.5.2 Project Back ground**

Before implementation of ERP, a detailed study was conducted by IPGCL-PPCL with the help of M/s. Management Development Institute (MDI), Gurgaon to ascertain whether the organisation was ready for ERP implementation or whether to wait for some more time in educating our people. The main purpose was not to ascertain their computer proficiency, but their readiness for change and acceptability of technology. The team had also given the task of interacting with employees and identifying the major issues which can cause resistance to the successful implementation. The following were the results of the study:

#### ***Fear of job loss and perceived loss of power***

It was noted that in the lower cadre, the main fear was of losing their job, due to the thinking that everything will be automated and they will not have much to do. This group was severally against the ERP implementation and tried to distract the attention of the team by raising other not so significant issues and demanded their resolution instead of implementation of ERP.

Although there was general enthusiasm among the officers, the main fear was regarding loss of perceived powers which they felt are lying with them in a manual system and all the information will be available after computerization to everybody and they will not be wielding the same powerful profile as at present.

People also perceived that there will be less scope of manipulation which at times may go against them also.

#### ***General resistance to change – Fear of unknown***

Due to lack of knowledge about ERP and how it can bring about changes in the organization, there was a general atmosphere of uncertainty in the organization for some new system, true to the law of inertia in physics. People were complacent and were generally opposed to change without any specific reason.

### **1.5.3 Issues & challenges of the project**

Besides the above, the other organizational constraint which came out as challenges during the implementation were as mentioned below:

#### ***Infrastructure Requirement***

This was a big project and before this, IT was never treated as a major entity in the organisation. The job of IT was limited to maintenance of website, aggregation of information, AMCs of desktop and laptop, running the payroll and maintenance of two package softwares, one for integrated financial accounting system and another for material management system. This project required centralized server room / data centre and access to data centre from all the plants and offices with uninterrupted connectivity. Although to support the existing DCS system reporting to Head quarter, some infrastructure which was there, either they were not functioning properly or they were not adequate enough to take care of the SAP implementation requirement.





### ***Space constraint***

The Project requirement was to keep core team members & consultants of around 60 in numbers along with the availability of systems, Space for establishment of data centre was posing a big constraint, since there was no experience in the organisation for such a huge infrastructure establishment, it became a very painful task to identify suitable space, reorienting the existing establishment and establishing the space & infrastructure requirement for the Project

### ***Intra-connectivity & Inter-connectivity of all the plants and offices.***

Setting up Wide area network (WAN) between offices and plants and local area network (LAN) within the offices and plants was a huge challenge, & was essential for rolling out the ERP system in the organization. And also there was time pressure challenge for availing the entire connectivity infrastructure within the required timeline of the SAP implementation Project.

### ***Setting up the data centre***

While planning for the Project it was never envisaged, to have a separate data centre with all security aspect taken care of, along with suitability in terms of accessibility from safety and connectivity point of view. And suddenly it appeared as a biggest bottleneck in terms of availability structural requirement. As no budget was planned for going for datacenter contract separately, the task was set up a data centre with in-house experty.

### ***Managing Multiple vendors and execute within the timeline.***

During the implementation multiple entities were involved, NISCI for over all coordination, SAP the ERP Product vendor & Implementation , HP the hardware vendor, HCL hardware installation, VERITAS for Clustering, HCL Infotech for LAN & WAN, ERNET for Wify communication, and other internal department like Civil, Electrical deptt, and coordination between all these entity which was a daunting task.

### ***Project Budget***

With the approval of Project the project budget was kind of finalized, so when issues like above started coming during the execution it was really an herculean task for managing approvals from managements for all essential infrastructure related requirement expense. Being a government organization that getting approval and executing the same concurrently was a big challenge.

### ***Non availability of suitable and qualified manpower***

The implementation of ERP required few people from each stream who knew end to end processes, policies and systems and goals of the organization for better implementation and accepting the benchmarking standards for adopting the same into organization. Due to shortage of qualified manpower and ongoing expansion of the organization with addition of one Power plant in construction stage, it was very difficult to identify the suitable persons and then getting them posted in ERP department. There was huge tussle between the Head of Power plant project and the Project director of the Project parivartan, for getting the Core team for the Project Parivartan.



### ***Shortage of competent IT professionals***

Core IT department lacked the regular employees and was being managed with the employees on contract through DOAECC. It was very important to develop the core competence in this area for further maintenance of the infrastructure and running the system.

### **1.5.4 Steps taken to Overcome the Issues in the Project**

Although issues mentioned were really big enough to pose a risk to the completion of project on time, however all of them taken care of as below,

#### ***Managing resistance to change with Communication***


From the study conducted by M/s. MDI, Gurgaon and IPGCL team, it was concluded that there was an urgent need to communicate and educate the employees about the ERP, its implications, its benefits for the organization and decimate the fear of loss of job and perceived power etc. The various workshops were organized in different plants and in training centres and goal of the objective of the Company were discussed. The ambitious expansion plans were also presented to the employees along with the backward and forward integration of generation through coal mining and power trading avenues. Existing employees were told that there is no fear of job loss because of the proposed expansion and if at all any department or employee will become redundant after ERP implementation, they will be suitably trained and adopted in a new assignment. The employees were also told that if their systems are streamlined, they can stake a better claim on incentive and get the same without any problem.

A newsletter named "PARIVARTAN" was also published fortnightly to make the employees aware about ERP project progress, SAP functionalities, benefits to the organization as well as employees. Through the newsletter and Power users employees were told that they will not have to run for getting their leaves sanctioned, getting advances, increments, time bound promotions and for other HR issues, since they will be automated by the system and will require no pursuance. The officers were told that after implementation of ERP, more time will be available at their hand to do other creative works and make themselves indispensable for the organization. It was clearly communicated that the system will take care of automating of the routine jobs so that employees do not waste their valuable time in resolving trivial issues.

The above workshops and training sessions and proper communication with the employees help in preparing conducive atmosphere in the organization for ERP implementation.

#### ***Managing the Budget Requirement***

Cost benefit analysis was performed in association with M/s. MDI, Gurgaon to prove that the project was financially viable and the organisation shall be able to reap the benefits in a given point of time. This was also required to get the clearance from Regulatory Commission for capitalization of the project. Moreover, since the organization was having very ambitious plans, the top management was convinced that there is a requirement for such a System which can integrate the processes and there would be only a single truth in the organization. After deliberations in high level meetings, the budget was sanctioned for the project by the Board. However, to execute the LAN and interconnectivity and setting up a data centre was again a Herculean task in absence of the availability of competent manpower. With a special



approval, two IT professionals were recruited on permanent basis and with the help of NICS, these projects could be completed well in time so that the development work in ERP implementation could start.

### ***Data Center work & sitting arrangement Completed on time***

The next big issue was setting up the data centre for which a proper space was identified. However, it was later noticed by the Civil department that structure cannot hold the design load. Therefore, midway the location was changed and it was shifted to the top floor of the utility building of power project, which was safe in all respects. Also, the seating arrangement for a team of 60 persons became an issue which was resolved with the intervention of the top management and a big portion of training institute was taken over by ERP team.

### ***Managing Multiple vendors and execute within the timeline.***

All vendors and department involved in the project were called for regular periodic review, and inter functional issue used to get resolved with the help of Senior stake holders from IPGCL, NICS and vendor organizations. And the symphony was so established finally that overall execution became an example in the organization.

### ***Making right manpower available for the Project***

The major problem was to set up a Core team of functional experts from the organization for ERP implementation from each stream viz. HR, finance, technical etc. When approached individually, although team members showed willingness in joining ERP team, however, their bosses were not willing to let them go citing the shortage of manpower and affect of the same on smooth running of the organization. The project In charge of the new 1500MW power project also raised the issue of non availability of proper manpower for execution of the project, however, with the cause of the clarity about the project with the top management, it could become possible to set up an excellent team which later delivered excellent results.

## **1.5.5 Critical Success Factor of the Project**

All the point mentioned were contributed to the timely & successfully implementation of the project, however following are some of the factors which were contributed immensely to the project success

- ◆ **Involvement of top management from the day one of the project :** Starting from the concept stage, Project kick off, Process change workshops, Monthly steering committee review, the top management of IPGCL & PPCL was involved in the Implementation.
- ◆ **Project Management Team Composition:** Understanding the Govt org culture redundancy was built into PMO team with 2 Project Directors, and 2 project Manager, which could ensure the focus of the PMO throughout the implementation Period.
- ◆ **Involvement of Product Vendor in the Implementation:** SAP being the product vendor normally get involved in complex and critical Project, here SAP was involved in implementation to ensure the First Implementation under Govt of Delhi to be real reference one.

- ◆ **Change Management & End user training:** Change management was hall mark of this implementation, with step by step involvement of end user in the process, and subsequently training of all user depending upon their job requirement.

### 1.5.6 Benefits from the Organization wide initiative

Normally after implementation of an organization wide initiative, the success and failure of initiative is judge subjectively. In IPGCL- PPCL management wanted asses benefit realized objectively. In that line a Value engineering study was conducted after 6 months of System implementation with the help of **SAP Business Transformation Study** team and same went on for a period of about 2 months, across various functions. The findings of the study are outlined as below.

#### *Financial and Strategic Benefits*

- ◆ System-enforced consistency in adherence to policies / Standard procedures across all locations
- ◆ Easy creation of RFQs (Enquiries) from Purchase Requisitions in the system, zeroing all the typing efforts by C&M department
- ◆ Complete visibility into asset maintenance history and spare parts movement
- ◆ Reduced efforts in managing preventive maintenance schedules
- ◆ Reduction in efforts in performance appraisal management due to use of online performance management
- ◆ Reduction in manual efforts for carrying out transfers and promotions of executives

#### *Operational Benefits*

Key Performance Indicator	Impact
Procurement lead time reduction (PR creation to PO delivery) <ul style="list-style-type: none"> <li>• Single tender</li> <li>• Limited tender</li> <li>• Open tender</li> </ul>	58% (from 128 days to 54 days) 46% (from 147 days to 79 days) 51% (from 283 days to 140 days)
Preventive maintenance adherence (Average across all the power plants)	20% to 30%
Accuracy in distribution of maintenance cost between preventive and breakdown maintenance	Improved from 80% to 99%
Time taken in financial vetting of indents	-80% (from 5 days on an average to same day)
Efforts to maintain fault register, docket filing and work permit filing	-100% (No manual effort required now)

## 1.6 Conclusion:

Project “Parivartan” implementation was a great example of success through meticulous planning, and firm commitment from all entity, can be a role model for any Government sector enterprise wide initiative implementation.

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## 1.8 About the authors




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