The case gives a description of the various challenges faced by Tata Power Delhi Distribution and the efforts made by the company to automate both the monitoring of power distribution and the various business processes. The company aspires to win hearts and change the mindset of different stakeholders and transform a loss-making government entity into an efficient and profitable business enterprise. Through this, it hopes to set an example not only for companies in the power sector but also for those in other sectors of the Indian economy that traverse the path of public-private partnership.

THE POWER DISTRIBUTION INDUSTRY

Although the industry has evolved over the years, the power distribution industry, developed primarily through state instruments, has very little contribution from the private sector. The barriers to entry created by the complexity of the distribution system and high technology costs combined with the regulatory regime have compounded the problems for the industry. With the input and output costs being fixed, and scope for differentiation being very low, the only means for survival of players was through building operational efficiency.

Some of the challenges that TPDD faced at the time of privatization were:

- Poor infrastructure/vulnerable network conditions
- Outdated business processes
- Lack of customer sensitivity

All of these led to high levels of aggregate technical and commercial (AT&C) losses.
AUTOMATION INITIATIVES TAKEN

Remote Control of Distribution Network and Transformation of Business Processes through SCADA

TPDD realized that the crux to increasing reliability of power lay in capability to remote observing and control of the distribution network. The procurement of the SCADA system from Siemens, its customization to suit the needs of the Indian industry, and training of operators laid the ground for the automation drive. It was supplemented with setting up of the communication infrastructure. When including the grids for remote control through the SCADA system, the strategy of including grids which were least complicated was followed. A back-up control system was also set up, something no other player in India was doing.

MANAGING DIFFERENT STAKEHOLDERS

Getting returns from the various initiatives was easier said than done. There were different stakeholders involved and managing their diverse apprehensions and aspirations was a stupendous task.

Customers

Customers used to power distribution through state were apprehensive that privatization of power distribution and introduction of various technological initiatives was a costly proposition. They perceived that electricity was a necessity and the cost had to be borne by the state. However, elongated power cuts and unreliable power had left many customers unhappy. They gained a lot of comfort from Tata Power’s image that was portrayed to turnaround the pathetic power distribution scenario in Delhi. That was a positive that worked in favour of TPDD.

Employees

The second biggest challenge was bringing about a change in the mindset of employees and in meeting their expectations. There was resistance to learn new things and also to shift departments. The employees saw their roles, responsibilities and their earnings due to overtime getting threatened. The HR policies of the company were looked into, the union leaders were taken into confidence and extensive training programmes were organized for the employees.

The efforts made by TPDD to get its employees on board shows that the organization believes that building the expertise of employees over time would give it an employee base that would not only support its future technical initiatives, but would also bestow the organization with a resource that would be hard to imitate by other players in the industry. It depicts a strategic approach towards building the absorptive capacity of the firm. The involvement of the management with the employees helped in improving their motivation level. The close interactions not only helped him in remaining informed but also helped various groups to work in a coordinated manner.

Government

The government was experimenting with the public partnership model for Delhi Power Distribution. It had to be convinced with respect to the efforts made by TPDD to turnaround the situation. The achievement of regulatory targets was very essential in order to extend the power distribution license period given to the company.

The government/regulatory commission’s change of policy with respect to multi-year tariff, grant of subsidy, etc., was also impacting the profit lines of the distribution companies. The government in future was also toying with the idea of an open access system that would give customers the freedom to choose the power supplier among many. This was expected to bring in more competition in the industry, implying that the company had to be at the forefront of technology and automation to outperform other competitors.

Society at Large

The society at large had to be convinced with respect to the benefits of the system to their quality of life. The reduced use of diesel generator (DG) sets would not only lead to reduced cost but would also reduce the consumption of petroleum in the country that was anyways a costly resource. It would also eliminate installation costs of inverters for the consumers.

In order to diffuse the benefits to the society at large, it is essential to get support from the government.
The case gives credence to the importance of internal and external communication. Any technical initiative that integrates the needs of different stakeholders is assured of better performance.

COST–RETURNS TRADE-OFF

The benefits from installing the SCADA system and automation of business processes are evident. The remote monitoring of the network through the system reduced the power outage time and led to more customers being satisfied with the system. Internally, it helped the company save costs with respect to reduction in manpower and improved efficiency of the processes through availability of information from the grid. Many decisions/corrective actions could now be taken without loss of too much time.

The incremental approach to automation has given the company the confidence to deliberate on the next move of adopting a smart grid for the sustenance of the power industry.

FUTURE PERSPECTIVE

Innovation can be new to the world, new to the market or new to the firm. Although a follower and an adopter of the technological initiative, Tata Power Delhi Distribution is no doubt making an effort to innovate. Adoption of new technology, improvement of processes, and solving of encountered problems in a novel way has formed the gamut of technological innovation. The recent United Nations Conference on Trade and Development UNCTAD Report (2007) (as cited in Ayyagiri, Kunt & Maksimovic, 2011) argues that new-to-firm innovation or innovative imitations (new-to-firm innovations where firms create imitative equivalents of innovative products) are as important for facilitating economic growth as ‘new-to-world’ innovations, in developing economies (as cited in Ayyagiri, Kunt, & Maksimovic, 2011; Dasgupta, 2014).

Facing a hostile environment, Tata Power Delhi Distribution has developed solution for the technical initiative in collaboration with the supplier. Power, in any economy, is the core parameter for its growth and development. It impacts the economy and any innovation in this industry will have an exponential impact on other industries. The initiatives, therefore, should not be restricted to just one firm but should be adopted by other firms in the industry. It also showcases the importance of the sentiments that technology is no alternative for employees. Technical initiatives need to work in tandem to the softer aspects. A company can reap full benefits of a technological initiative only after it gets the cooperation from its employees and customers. Tata Power Delhi Distribution through its efforts can turn out to be a role model with respect to managing the balance between automation and manpower.

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