

Knowledge Management and Collaboration at Tata Consulting Services

CASE STUDY

Tata Consultancy Services (TCS) is an IT-services, business-solutions and outsourcing organization that offers a portfolio of IT and IT-enabled services to clients all over the globe in horizontal, vertical, and geographical domains. A part of the Tata Group, India's largest industrial conglomerate, TCS has over 108,000 IT consultants in 47 countries.

The concept of knowledge management (KM) was introduced in TCS in 1995 and a dedicated KM team called "Corporate Groupware" was formed in 1998. This group launched the KM-pilot in mid-1999, which was implemented subsequently by a team comprising the steering committee, corporate GroupWare implanters, branch champions, application owners and the infrastructure group.

At that time, KM in TCS covered nearly every function, from quality assurance to HR management. While its 50 offices in India were linked through dedicated communication lines, overseas offices were connected through the Net and the Lotus Notes Domino Servers. The employees could access the knowledge repository that resided on the corporate and branch servers through the intranet, with a browser front-end or a Notes client. The knowledge repository, also called KBases contained a wide range of information about processes, line of business, line of technology, and projects.

Though the formal KM efforts started in TCS in the late 1990s, the informal, closely knit communities of practices (CoPs) had existed at TCS since the 1980s, when it had around a thousand employees. The earliest "group" was based on the migration of technologies. Later, teams were formed for mainframe, Unix, and databases. The groups, consisting of one or two experts in their respective fields, began formal documentation practices with the members writing down the best practices. Recollecting the group practices in the initial days, K. Ananth Krishnan, a technology consultant at that time, recounted that in the mid-eighties, problems and solutions were documented and there were over 1,500 case studies for mainframe. Similarly, for quality area, 40 case studies were reviewed as early as 1993.

The next step was to create Process Asset Libraries (PALs) which contained information related to technology, processes, and case studies for project

leaders, which were made available to all development centers through the intranet.

Then Ultimatix, a web-based electronic knowledge management (EKM) portal, which made the knowledge globally available, was developed. The PAL library and KBases, which were hosted on the intranet, were merged with Ultimatix, which had sub-portals for a quality management system, software productivity improvement, training materials, and tools information. There were EKM administrators for each practice and subject group with defined responsibilities, such as editing the documents and approving them for publication. Commenting on the success of CoP, Krishnan maintained that between January 2003 and June 2003, CoP members had exchanged around 10,000 document transactions relating to the industry practices and 21,000 service practices via Ultimatix. The telecom CoP alone had 6,000 transactions, excluding the intranet-based community activities.

To encourage employee conversations, TCS took considerable care in the architecture of its development centers, located across the country. Reflecting on the new design of one of its development centers in Sholinganallur, Chennai, CFO S. Mahalingam commented that the center is made up of modules, each dedicated to one particular technology or a client or an industry practice. These structures lead to garden terraces, where employees gather during their break for informal conversations and brainstorm the solutions to many problems.

TCS also launched a number of training programs such as the Initial Learning Program, targeted at new employees, the Continuous Learning Program for experienced employees, and the Leadership Development Program for employees with more than five years' experience. The integrated competency and learning management systems (iCALMS) that was deployed globally across all TCS offices promoted a culture of learning and growth in the organization. Equipped with data about competency definitions, role definitions, and online/classroom learning objectives it helped the consultants to enhance their skills in a customized manner. To gain cross-industry experience, TCS regularly rotated people across various functions and within other Tata Group companies. Employees were also encouraged to join outside bodies like the IEEE, and go in for certifications.

Knowmax, a knowledge management system, developed using Microsoft sharepoint portal server in 2007, gave TCS consultants access to nearly 40 years of experience and best practices, arranged by type of engagement, the technology in use, and customer requirements. It supported more than 60 knowledge assets and was accessible via Ultimatix to all TCS associates. Any associate could contribute to the K-Bank and Knowledge Officers were made responsible for maintaining the quality of content.

To maintain the work-life balance of its employees, TCS initiated Propel sessions which brought together employees with similar interests to conduct various activities such as reading books. Later, held every quarter through conferences and camps, this initiative also spurred knowledge transfer among the employees. The knowledge sharing at the project level was done through LiveMeeting application, where all the project meetings were recorded and stored in the project repository. Team members who missed the meeting, or any new members in the team, could listen to the recorded sessions and this enabled them to catch up with the rest of the team. Furthermore, Knowledge Transition sessions conducted weekly by the "Subject Matter Expert" helped the team to learn from the experience of the experts. "Tip of the Day" mail, comprising either technical, or conceptual, or human skills tips were also shared within the organization, almost daily.

Though Ultimatix, launched in 2002, digitized the entire organization from end to end and improved the business processes' efficiency, it still couldn't tap the knowledge of employees effectively. To improve collaboration among employees, Project Infinity was launched in 2007; this involved a number of technologies including IBM's Sametime, QuickPlace, Lotus Domino Collaboration tools, Avaya VOIP telephony, and Polycom IP videoconferencing.

As a result of adopting Infinity, collaboration of overseas and local offices improved as instant messaging (IM) got rid of cultural and pronunciation differences that could occur on the phone. Furthermore, corporate communications were able to run a 24-hour internal news broadcast to all TCS offices in the world. In addition, travel and telecommunications costs were reduced by 40 percent and 6 percent respectively.

Other than these channels, the company also used the JustAsk system (embedded into the KM), Blog platform, IdeaStorm, TIP, and My Site. Blogging had caught on rapidly since 2006 when it was first

introduced. Almost 40,000-50,000 TCS staff blogged on the intranet. While the JustAsk system allowed employees to post questions that others could answer, Idea Storm was a once-a-year event, where two to three topics were posted by the corporate team on which ideas were invited by everyone. TIP, an open portal for product innovation and potential new ideas was launched to promote the sharing of ideas. MySite, embedded into the KM portal, allowed each associate to have a personal page like Facebook or Orkut.

Sources: Sankaranarayanan G., "Building Communities, the TCS way," *expressitpeople.com*, September 2003; Kavita Kaur, "Give and Take," *india-today.com*, January 2000; Sunil Shah, "Network Wonder: Collaborative Tools Help TCS Grow," *cio.com*, July 2007; Shivani Shinde, "TCS Sees Synergy in Gen X Tools," *rediff.com*, July 2008.

CASE STUDY QUESTIONS

1. Analyze the knowledge management efforts at TCS using the knowledge management value chain model. Which tools or activities were used for managing tacit knowledge and which ones are used for explicit knowledge?
2. Describe the growth of knowledge management systems at TCS. How have these systems helped TCS in its business?
3. Describe the collaboration tools used at TCS? What benefits did TCS reap from these tools?
4. How did Web 2.0 tools help TCS to manage knowledge and collaboration among its employees?
5. How do you think KM tools have changed some key operational processes at TCS, such as bidding for new projects, project development and implementation, customer service, and so on?

Case contributed by Neerja Sethi and Vijay Sethi, Nanyang Technological University