Project Management Institute

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MANAGE India

GAS PIPELINE PROJECT GOES FULL STEAM AHEAD

Gas Authority of India delivers Vijaipur-Dadri-Bawana Gas Pipeline Project below projected cost and on time

To build the new pipeline network of 592-km, GAIL used 100,000 tons of steel pipes. The pipeline passes five states in central and north India.

COVER STORY

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Letter from the Managing Director, PMI India

Raj Kalady
Managing Director, PMI India

Dear Practitioners,

One round of festivities has just finished in India and we're gearing up for the next. I hope you had a wonderful Dussehra and Diwali and are looking forward to Christmas and New Year.

The year 2011 has been an eventful and satisfying year for us at PMI India. As you are aware, we launched the West Bengal Chapter earlier in the year. That takes the number of chapters in India to eight. I'm glad to see that membership is steadily growing across all our chapters.

As fears of an impending recession grip most economies around the world, India manages to post growth in most sectors. Organizations now realize more than ever before how project success is intrinsically connected to organizational growth. Today we find organizations across industries more forthcoming with deploying project management to achieve their business goals.

We launched our strategic initiative, the PMI India Champion Program, and the response has been very encouraging. After launching the initiative in Bangalore and Chennai chapters, we have not introduced it in North India Chapter. Through this program, we have been able to identify and support practitioners who are passionate about project management and want to increase awareness about the discipline in their respective industries.

This year we strengthened our relationship with other industry bodies. We had several successful programs with the Federation of Indian Chamber of Commerce and Industry (FICCI) and the Confederation of Indian Industry (CII). These alliances have helped us reach out to organizations and professionals across industries. The next big program on the agenda is the CII-PMI Project Management Conference in December in Bangalore.

After the highly successful national conference in Bangalore in September, we're now looking forward to our first Research and Academic Conference in Pune on 9–10 December. The conference, under the theme, "Getting India Ready in a Project Driven Economy - Role of Academia," will bring together scholars, senior practitioners, and students of project management and allied disciplines.

As we present to you the last edition of *Manage India* for 2011, I wish you and your family a Merry Christmas and a very Happy New Year.

Best regards,

Raj Kalady
Managing Director, PMI India

Project Management in e-Governance: What Got You Here Won't Get You There

Mr. G.V. Subrahmanyam, partner, Government & Infrastructure, Grant Thornton India, on the strategic shifts that can improve e-governance service delivery in India

In India, over the past five years, various central and state government departments traversed the path of leveraging IT for improving public service delivery and internal efficiencies. We are seeing this change largely due to the initiatives of the Department of Information Technology (DIT), Government of India, to promote the use of IT through the National e-Governance Plan (NeGP). To ensure the success of e-governance projects, it is necessary to have smooth sharing of information and seamless interoperability of data across e-governance applications. DIT is focusing on standards in e-governance and promoting the usage of open standards to avoid any technology lock-ins.

The champion-led successes give hope to the taxpayer that investments in IT can bring in much desired improvements in public service delivery. Projects such as MCA 21 of the Ministry of Corporate Affairs prove that citizens are more e-ready than what government agencies believe them to be. MCA 21 is a mission-mode project by the Government of India under the National e-Governance Plan that has enabled electronic filing and payments. However, there are many other e-government projects that are delayed, abandoned, or in "drag" mode. Although not much data is available on the failed/stalled projects, it is important to be aware of the widening gap between the scale of investments into e-government projects and return on such investments. This is reflected in India's global ranking of 119 out of 184 countries in The United Nations Global E-government Survey 2010. The survey assessed countries on an overall e-government index.

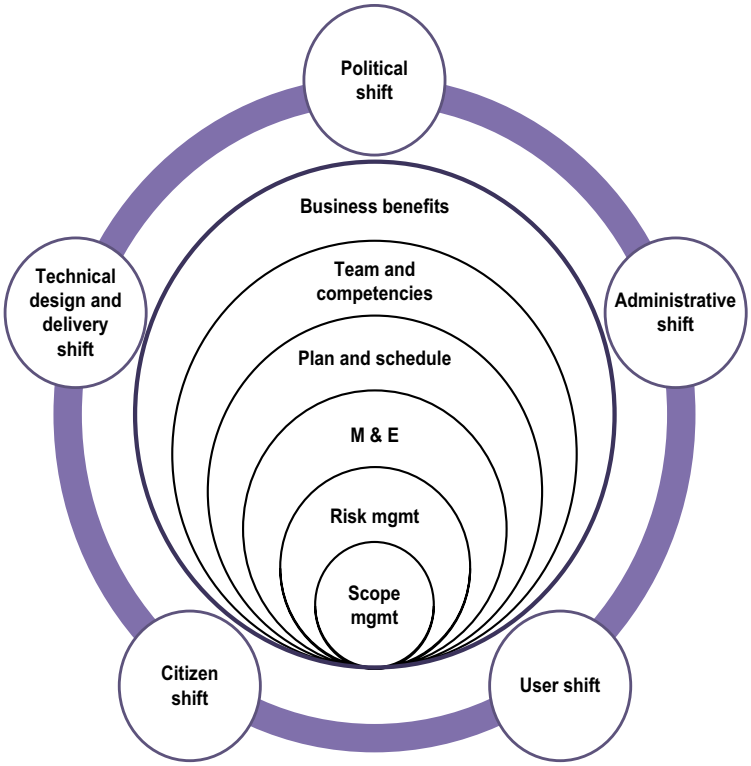
Strategic Shifts to Define the New Normal

Large e-government projects in India are more likely to get stuck than succeed, unless certain conditions precedent for the success of IT projects in the public sector are promoted and fostered collectively by important stakeholders in the e-government ecosystem. It is time to reflect and debate on strategic shifts that need to be institutionalized in the e-government ecosystem. This next wave of reforms contemplated by government agencies is needed to make e-government the new normal for public service delivery in the country. The (open) secret lies in the deployment of killer services/applications designed at providing convenience to citizens and businesses, and electronic access (adequate bandwidth at the doorstep of the villager) at affordable prices. Indices such as network readiness reflect the overall penetration of IT in society as a whole. India's current level of e-readiness can be leveraged successfully by government agencies to improve the efficiency, effectiveness, and economy of public service delivery. This can be accomplished by developing and implementing more robust e-government programs and project management frameworks.

While IT project management expertise is available in abundance in the private sector in India, e-government projects are often filled with challenges that require customized approaches for service delivery. A few important shifts in the approach for the successful design, development, and implementation of e-government projects are summarized below:

Category	Shift/New Normal Ingredients
Political	• Demonstrated "tone at the top" by political leadership
	• Professionalize "IT" as a key function in government
	• Accountability—the buck stops here!

Administrative	• Alignment of IT with the development agenda of the state/central government agency
	• Institutionalize IT risk management as a process in the prevention, identification, and mitigation of risks associated with e-government projects
	• Measure! Measure! Measure! Build e-government projects around key outcomes such as uptake and customer satisfaction
	• Avoid deployment of emerging/latest technologies for the sake of IT
	• Institutional strengthening: elevated stature for IT
	• Business should drive technology
	• There is a need for an e-government-specific program and project management tool to manage the life cycle of e-government projects
	• Shift from translation to transformation (of processes)
	• Vested interests—cannot be silent on these informal dynamics
	• Organization's structural rigidity can limit integrated service delivery. Strong linkages needed among strategy, structure, and systems
Industry	• Tackle underpricing, understaffing, and under-delivering
End Users	• Change management, training, and communication programs should be dovetailed into every large e-government
Citizens	• Convenience drives demand/uptake. Comprehensive citizen programs should be aimed at building trust in the e-service delivery program



e-Government Project Management Framework

For the successful implementation of e-government projects, an effective e-governance project management framework and categorization of various risk dimensions are needed (as shown in the picture).

In addition to the different project management aspects that need to be considered, factors related to bureaucracy, political leadership support, and government organization culture are some fundamental shifts that require to be incorporated into the overall project management framework for an e-governance project.

Gas Pipeline Project Goes Full Steam Ahead

Gas Authority of India delivers Vijaipur-Dadri-Bawana Gas Pipeline Project below projected cost and on time

BY PANCHALEE THAKUR

India is faced with the twin problem of enhancing power generation to support growing industries yet containing environmental pollution from power facilities run on coal. A more viable alternative is natural gas that has earned the "fuel of the 21st century" tag. Natural gas emits 6 and 42 percent less carbon dioxide than coal and oil, respectively. It also does not come with waste disposal and safety hazards as in nuclear energy. Besides importing, India wants to meet the demand by augmenting supply from the domestic reserves of natural gas.

One such project is the Vijaipur-Dadri-Bawana Gas Pipeline Project by GAIL (India) Limited, earlier known as Gas Authority of India Limited. This project, undertaken in 2007 to upgrade the capacity of its pipeline network in north India, won GAIL the PMI India Project of the Year 2011 Award at the PMI India National Conference in September.

Project Charter and Scope

The pipeline project was designed to connect GAIL's natural gas terminal in Vijaipur in Madhya Pradesh in central India to a terminal in Dadri in Uttar Pradesh in north India. It would then extend to a power plant in Bawana that supplies power to Delhi. The project was part of GAIL''s infrastructure enhancement program aimed at integrating the country's gas grid.

GAIL makes up for 78 percent of India's gas transmission needs and has a total of around 8,600 km of high-pressure natural gas trunk pipeline network. This project has added a network of 592 km from central India to north India.

The project charter included the following key objectives:

- Upgrading the capacity of the existing pipeline network from 20 to 80 million metric standard cubic meters per day downstream of Vijaipur
- Evacuation of extra gas from Petronet LNG Ltd., Dahej and Reliance Industries Ltd.'s KG-D6 offshore project
- Supplying gas to customers in Haryana, Punjab, and Uttaranchal in north India through the Chainsa-Jhajjar-Hissar Pipeline, Bawana-Nangal Pipeline, and Spurline and Karanpur-Moradabad-Kashipur-Rudrapur Pipeline
- Commence gas supply to Pragati Power Corporation Ltd.'s Bawana Power Plant and New Delhi Power Plant being set up to enhance power supply in the Delhi region before the start of the 2010 Commonwealth Games in New Delhi

The GAIL board of directors approved the project in November 2007 for an estimated cost of Rs. 4,262 crore. GAIL appointed Engineers India Limited (EIL) to manage the project. It was a highly challenging project that involved five states, Madhya Pradesh, Rajasthan, Uttar Pradesh, Haryana, and Delhi. To carry high-pressure gas, the pipeline network would cross 291 villages in these states and several physical obstacles like rivers, forested area, and wildlife sanctuaries. The project required land or Right of Use (RoU) to build 24 sectionalizing value stations and intermediate pigging stations. Sectionalizing valves allow pipeline sections to be closed and isolated from the rest of the network so as to stop the release of gas to a section in case of a leak or rupture. A pig is a device that cleans the insides of the pipeline and is propelled through the pipeline by the natural gas inside it. Intermediate pigging stations launch and receive these devices.

Physical Obstacles the Pipeline Had to Overcome	
Crossing Type	**No. of Crossings**
Railway	18
National highway	13
State highway	10
Other roads	196
Water bodies (rivers, canals, and drains)	136
Forest area	38 km in 6 patches
Wildlife sanctuary	1 across 2 states

Construction involved laying of 592 km of carbon steel cross-country pipeline that is internally and externally coated to prevent metal corrosion and the installation of 24 sectionalizing valve and intermediate pigging stations. All along the pipeline route, EIL laid an optical fiber cable network for voice and data transmission. Data received through this network would help manage and monitor the pipeline from the designated control rooms. The other main features included installation of a cathodic protection system, supervisory control and data acquisition system (SCADA) and telecom system, gas metering stations, and a solar power system. Cathodic protection prevents the buried pipeline from corrosion, SCADA helps in managing the network remotely, the telecom system helps in maintaining communication channels, gas metering stations have devices to measure the flow of natural gas in the pipeline, and solar power systems generate power to operate these various systems along the pipeline route.

The pipeline passed different terrains and posed a host of challenges for the team. Explaining some of the key challenges faced, Mr. Asim Prasad, chief manager—project execution, GAIL said, "The pipeline section between Vijaipur and Dadri was being laid in the RoU where there was a pre-existing operational pipeline. Safety was of paramount importance. Heavy monsoon brought work to almost a standstill for over two months during 2009 and 2010. We faced stiff resistance from farmers and landowners in Baghpat and Dadri. It resulted in slow progress and disbursement of compensation at a much higher rate than what had been envisaged earlier. The Chambal River strata turned out to be very tough and the task of horizontal directional drilling was technically and physically challenging. Chambal is a stronghold of dacoits (highway robbers) and the construction team received many threats from dacoits. We completed the work under police protection."

How Project Management Helped

Meticulous planning, close monitoring, and fast resolution of issues ensured the project proceeded on time in spite of unforeseen challenges.

GAIL had prepared a Detail Feasibility Report (DFR) along with the financial appraisal report after project conceptualization. The DFR involved aspects such as selection of pipeline route, line pipes, cost estimates for rights of use and land acquisition, and procurement and work packages. As the project plan was put before the GAIL board for approval, the team set the ball rolling with pre-project activities like surveys and soil-testing. Selection of the project manager and project team at the corporate office was also completed before project approval. The main criterion for selecting the team and project manager was experience in successful project completion. By the time construction started, the company had placed two multidisciplinary teams with core competence and experience in pipeline projects. One team was in New Delhi for project execution at the corporate level and the other at the site for construction activities.

Stakeholder management was a crucial aspect of the project. "The stakeholders were segregated into groups based on their expectations, demands, degree of influence, participation, and criticality at various stages of the project. We conducted a stakeholder analysis to understand the level of influence, participation, and criticality of each major stakeholder," said Mr. Prasad. This analysis helped manage stakeholders' demands and expectations during the project. GAIL also communicated periodically with the stakeholders updating them on project status. The team spent significant effort in holding meetings with farmers, land owners, statutory authorities, and government officials to convey the objectives, status, and benefits of the project.

Construction constituted 28 percent on the work breakdown structure, the highest among all the elements.

The project was divided into nine work breakdown structure (WBS) elements and a schedule prepared to monitor project progress. In monthly progress reviews, reasons for any backlog

in the WBS elements were identified and catch-up plans drawn up. The highest weightage in the WBS was accorded to construction (28 percent), followed by manufacturing (25 percent), ordering (15 percent), and tendering (10 percent). The weightages were assigned based on past experience and best practice.

Some of the other measures taken to speed up work were an electronic file movement system that tracked proposal files for the project, a bill watch system to track bills submitted periodically by vendors and contractors, and an electronic e-payment system for release of payment to vendors and contractors. Periodic reviews of project progress conducted at various levels helped monitor progress and resolve issues to cut delays.

"The project manager and project team were stationed at the corporate office in New Delhi. We followed a strong matrix organization structure during project execution to align the project WBS with the organization structure," explained Mr. Prasad. Manpower and capital were assigned to each of the work packages and responsibility was fixed in line with the breakdown structure. "In any natural gas pipeline project, timely ordering and supply of coated pipe is a challenge. Accurately dividing the entire pipeline into sections helped in resource levelling during pipeline construction."

There was, however, one surprise in store for GAIL, albeit a pleasant one. In June 2009, due to a fall in steel prices, the GAIL management decided to take call for tenders again. Steel prices had fallen 50 percent in the global market and re-tendering could mean significant savings for the current project. The total amount of steel pipes the project required was 100,000 tons. GAIL realized a 19 percent savings on the total project cost due to better steel prices. "Steel is a major constituent used for manufacturing different components of pipeline projects like line pipe, valves and other line material. By the time the order was placed for these items, the steel market had gone into a recession mode. This helped achieve cost savings, which impacted the total cost of the project," explained Mr. Prasad.

Risk management is the other key aspect in a project of this nature due to the interplay of a large number of external factors. At the pre-construction stage, the risks that could delay the project were delay in land acquisition, approvals or clearances, delay in start of work, delay in finalization of key contracts, and funding risks. During construction, the risks were categorized under the followings: engineering, technology, equipment supplier, contractors' failure, project cost, completion, foreign exchange, infrastructure, and force majeure. At the operation stage, the uncertainties could come from operating costs, inflation, environmental factors, and gas availability and demand. GAIL overcame these risks with detailed planning, close monitoring of project progress, and effective communication.

Socioeconomic Benefits from this Project

Even though the final closure order is still in process, the commercial operation of the pipeline has commenced. The pipeline network resulted in the following benefits:

- Reduced the supply–demand gap of natural gas in north India
- Supply gas to fertilizer plants en route, thereby giving them access to cleaner and cheaper fuel
- Helped in the creation and development of new industrial hubs along the pipeline route
- Led to socioeconomic development of backward areas
- Provided additional direct and indirect employment in the region
- Ensured reduction in emissions due to the supply of eco-friendly fuel
- Created an uninterrupted, safe, and reliable mode of transportation of gas
- Provided revenue generation for the state governments over the entire life of the project

Explaining the benefits, Mr. Prasad said, "Natural gas has many uses. It is used as a raw material and feed stock in industries, piped natural gas in the domestic sector, and compressed natural gas in the transportation sector." In the years ahead, the pipeline project is expected to help in the economic development of areas through which it passes.

Public sector projects in India often languish with cost and time overruns. The GAIL pipeline project, aimed at infrastructure enhancement of the country, sets an example for similar large public sector projects to follow. GAIL demonstrates that with project management, large projects can overcome risks associated with managing multiple stakeholders, a host of external risk factors, and a globally dispersed supply chain.

ARTICLE OF THE MONTH

Submit your articles for the January 2012 issue by 15 December 2011

If you have a flair for writing and a desire to share your ideas with the project management community, here is an opportunity. E-mail us your article and our editorial team will select the best article among the entries for publication in *Manage India*. Each issue of *Manage India* will carry a winning entry and the writer will earn Professional Development Units (PDUs).

Send us your article with your photograph to editor.manageindia@pmi-india.org

Who is eligible for the contest?

- Chapter members
- PMI members
- PMI credential holders

What guidelines should you follow?

- The article should be relevant to project management.
- The article should be an original piece of writing.
- If the writer uses information already published, he/she should give such references.
- An article will be rated on its topicality, high interest/usefulness for the project management community, and writing style. Articles submitted after the due date will be considered for the next issue.
- It should not exceed 600 words.
- The writer can e-mail us photographs or other illustrations to go with the article.
- Selection is at the sole discretion of the editorial team.

Why should you take part in the contest?

- Share your knowledge with the community
- Get visibility
- Earn PDUs

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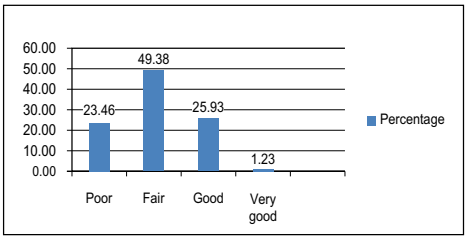
Drivers of Project Management Education in India

Below is a gist of a research study conducted last year. The complete report is published on the PMI India website.

Background: India has set huge growth targets with enormous investments into mega-, major-, and medium-sized projects to improve the existing infrastructure in the country. According to the Ministry of Statistics and Programme Implementation, in the year 2009 alone, a total outlay of Rs. 6,072 billion was tied up in 941 central government projects. In the private sector, the investment value tied up in projects stood at over Rs. 100 trillion. As per data from the Centre for Monitoring Indian Economy, the aggregate employment in projects is over 160 million people. With frequent cost and time overruns in projects, there is now a realization within both the public and private sector of the need to bring in qualified project managers to run projects.

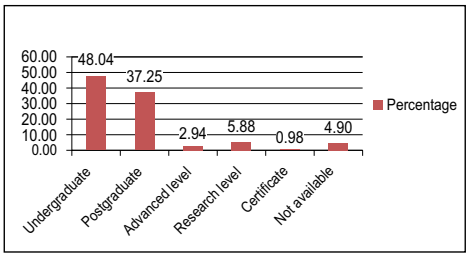
Perception of the Current Status of Project Management Education in India



However, project management education in India is still in its nascent stage. In the case of China, India's closest comparable country, project management started developing as a strong profession in the 1990s. In comparison, efforts to promote project management education in a structured mode have just begun in India.

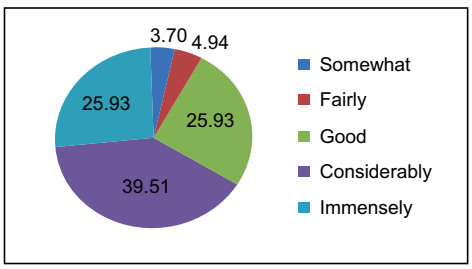
Objectives of the exercise: The study was aimed at investigating the factors that are responsible for driving the growth of project management education in India. The scope included studying available literature on the subject and gathering responses from a cross section of primary stakeholders through interviews. These stakeholders—responsible for promoting project management education—are the government, academic institutions, practicing executives, and human resource (HR) managers connected with project management education and training. The study used both primary and secondary data from across the country to give it a pan-India flavor.

Level at which Project Management Course is Introduced



What the study found: Responses from academic institutes showed that there is a need for the promotion of project management education in technical and business schools to improve the employability of students. Overall, institutes need an extensive project management curriculum that can be taught in technical, business, architectural, planning, and infrastructure institutes. Faculty members interviewed opted for six core subjects to be a part of the course curriculum. These are: operations management; project planning, execution, monitoring, and control; statistical methods for project analysis, health, safety, and environment; operations research; and accounting and control systems. They also felt the need to cover sector-specific issues. The study pointed out subjects of importance under each area of study, such as technology, management, economics and strategy, and behavioral sciences. What also emerged was the need to combine various aspects of these areas of study into one course curriculum to help graduates to manage projects in a coordinated and integrated manner.

Impact of Project Management Courses on Employability of Students



The survey of practicing middle management executives from leading project-based organizations in India revealed several interesting findings. The courses executives rated as "extremely important" include planning, scheduling, monitoring, and control techniques; project quality management; health, safety, and environment management; cost estimation and budgeting; quantity surveying and estimation; project site and equipment management; project procurement and materials management; and contract management. In terms of the relevance of project management training, sectors such as roadways, railways, urban infrastructure, civil aviation, and mega property development were rated higher than others.

Experienced HR managers of leading project-based organizations offered their views on different issues, such as the training design, types of project management training, costs of training, factors affecting such training, cadres to whom training is to be imparted, and training efficacy. Their objectives in organizing project management training are to prepare executives with key skills in planning, controlling, execution, contracts, and other such areas

that enable them to contribute directly to project success. The following factors are considered before deputing executives for training: perceived gains from the training; employee retention; career development; ability to execute complex projects; ability to monitor and control projects; ability to plan projects; ability to manage contracts in projects; ability to deliver projects in right time, costs, and quality. In-house training, on-the-job training, and on-the-job with classroom training are the most preferred methods of training. HR managers viewed training to be beneficial on all the factors considered, including increase in production/performance, reduction in errors and improvement of safety standards, employee retention, lesser supervision, ability to use new skills and capabilities, improved delivery performance, attitude changes, and growth of business oportunities. Certified franchisee trainers were rated most efficacious training providers, followed by internationally certified trainers, independent trainers, and academic institutes.

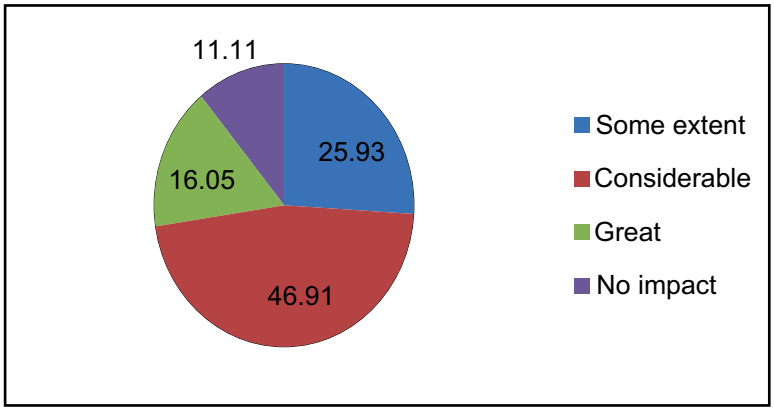
Conclusions and recommendations: The analysis reveals that the following six subjects (factors) included in the management and technology area are essential in a project management curriculum (i.e., 74 percent). These are: operations management for projects; planning/scheduling/monitoring and control techniques; statistical methods for project analysis; operations research for projects; project quality management; and health safety and environment in projects. According to a correlation analysis carried out earlier, operation management and operations research; quality management; and health, safety, and environment are strongly correlated. As a result, only four subject areas suitably combined account for the courses that are "absolutely essential." The remaining 25 subjects account for only a small fraction of the total curriculum (26 percent).

Only a limited number of subjects (factors) continue to describe the whole scope of the project management curriculum in an academic institute. The reason is that these institutes are in the early development stage of this profession. Multiple regression analysis suggests that the three types of institutes where project management education is essential are technical, management, and planning and design.

Different factors such as infrastructure related to library, availability of course material, classrooms, and qualified faculty are important variables in imparting project management education. However, these factors alone are not enough. The type of infrastructure currently prevailing is more dictated by regulatory requirements rather than the requirements of project management education.

There is a supply gap in capacity for project management training in the country. The causes can be attributed to the reluctance of technical and business academic institutes to introduce and attract students exclusively for project management. Only a handful of elite institutes in India have taken concerted steps in this direction. Executives working in project-based companies enter with little or no prior orientation of project requirements. Thus, training them to be project-ready is essential for these organizations. HR managers are responsible for designing training modules that would bring direct gains to the project and companies.

Company Looking for Project Management Competency in Students



The main barriers are: lack of awareness among managements of technical and business management institutes about the importance and relevance of teaching project management; lack of systematic curriculum development with a focused view to develop competencies; little interest in researching project management-related subjects among faculty; lack of trained instructors; long, winding procedures for regulatory approvals for introducing courses; provision of qualified faculty and infrastructure; and the costs of training that have to be absorbed by organizations.

Concerted efforts are needed in the areas of curriculum development, research, creation of awareness regarding the application of project management techniques to the project business, and using mass media to create awareness. Sustained advocacy at all levels of government is also strongly recommended. The report proposes some model curricula for project management education and training in technical and business management institutes as well as for executives in project-based organizations.

About the research team: The study was conducted by a team from the National Institute of Construction Management and Research (NICMAR), Pune, and sponsored by PMI India. Dr. M.G. Korgaonker, director general and project director, NICMAR, led the research team that included Dr. Mona N. Shah, who was the principal investigator, besides Dr. J.K. Koner, Prof. M.V. Madurwar, and Prof. Smruti Sanjeevani.

(For a copy of the detailed report, visit http://www.pmi.org.in/reports.asp)

Project Management in a Lean Way

BY VISUKUMAR GOPAL, MBA, PMP

Lean is a strategy, philosophy, and leadership approach for operating in a superior way. Lean thinking is a powerful methodology that can help to maximize the real value. Lean is not for fixing people; it helps in fixing process and influences behavioral change.

Many Lean principles and tools are applicable in project management. A project must have a "**Constancy of Purpose**." During initiation, we need to get all the stakeholders on board, and understand and set expectations so that all the stakeholders are on the same page as the project proceeds.

"**Respect for People**" allows bringing out the full potential of each team member during the project duration. Even small ideas need to be explored in a noncritical environment that helps improve the team's confidence level. During a project, even when the assigned tasks are completed on time and deliverables meet the current standard, it does not always produce acceptable results.

The "**Pursuit of Perfection**" helps to refine the deliverables more accurately, meet the requirements to the full extent, and go beyond expectations. The above-mentioned three principles are the foundation for any projects to start in a Lean way.

The planning phase provides room for new initiatives and to make a difference to project deliverables. **Proactive behavior** makes planning more effective and helps the project team to deliver in a well-disciplined way.

During execution, the project team starts delivering as per customer expectations. **Voice of Customer** helps define the business process and expectations of customers clearly. Often it is interpreted as customer feedback. Proactive behavior in listening to the customer helps to understand requirements well.

While working on projects with multiple vendors and function teams, we must get into their shoes to understand their challenges. This **System Thinking** helps to avoid unnecessary negative communication and reduce time wastage.

If we understand stakeholders' perspectives about requirements and their functions, it helps to deliver project deliverables with **Quality at the Source** during the execution phase.

During the control phase, depending on the progress of the project, we can set the flow of completed work based on requirements and the customer can pull the required elements based on priority. These stabilized **flow/pull** mechanism helps in an easy way to control and monitor the project.

In the closing phase, by adopting Lean principles, we can see the culture change along with lessons learned. Because of the strong foundation during initiation, behavior change during planning, perspective clearance during execution, and flow/pull mechanism during the control phase, the project manager can build a culture change during the close phase of the project. Culture is the capstone of the Lean principles pyramid.

Lean tools like **Pareto** and **Cause and Effect Analysis** are being used in project management. **TAKT Time** is another tool that helps a project manager during the planning phase to identify the available time for production per day against the set target.

The next tool is **Heijunka** that uses in load balancing during the execution phase. It helps in leveling of task flow, delivers as per customer demand, and enables optimum resource utilization in small batches.

PokaYoke is another tool useful during execution. While developing and producing the deliverables, simple and fail-safe methods that prevent mistakes or defects from occurring are known as PokaYoke.

During the control phase, **Kanban** can be used to monitor completion of tasks. This signal system helps to perform priority-wise task allocation. Different systems can be used for this signaling mechanism, and it is an effective way to monitor at this stage.

Kaizen tools can be used in execution, control, and close phases of most projects. Kaizen means continuous improvement and helps in the pursuit of perfection. It allows a small group of people to brainstorm in a structured manner on possible improvements, leading to innovation.

Marrying Lean principles and tools with project management techniques will increase the project success rate. It also improves the efficiency, productivity, and on time completion of projects. Lean and project management can improve the performance of a project organization.

(Mr. Visukumar Gopal is practice manager at Syntel Ltd. He has over 16 years of experience in project, process, and people management.)

WEST BENGAL CHAPTER

Learn and Earn Sessions

On 5 November, PMI West Bengal Chapter hosted PM Network, as a part of its "Learn and Earn" program. The session on "Avoiding Estimation Errors" brought together some of the city's most experienced practitioners. The event kicked off with a lively introduction of the subject by Ms. Sonali Bhattacharya, president, West Bengal Chapter. Mr. Arijit Sarbagna, an experienced project manager and agile practitioner, conducted the session.

He explored the myths and realities of agile project management and explained the nuances that can influence an estimation outcome. He took members—many of whom were new to agile project management—through the fundamentals of the framework. The lively discussions and sharing of experiences by members representing diverse fields of work enriched the session.

The event ended with the announcement of the chapter's first annual conference, Aviskar. The theme for the conference is "New Horizon of Project Management" and is scheduled for 17 December.

Volunteers Show the Way

The West Bengal Chapter is conducting training programs to help PMP aspirants in their certification examinations. The training program is aimed at helping practitioners in the region prepare well for their certification and build a strong community that shares and learns from each other's experiences. This program has received tremendous assistance from volunteers. The chapter awarded Mr. Sanjoy Bhowmick the top volunteer honor for this program last quarter. Mr. Bhowmick is a project management professional with IBM and has played a key role in conducting events for the chapter with end-to-end responsibility during Q3 of 2011.

NORTH INDIA CHAPTER

Busy Days for Members

The past few months were quite eventful for PMI North India Chapter and its members. The chapter released the second edition of its quarterly newsletter, *Synergy*, in September. Several members contributed articles for the newsletter, and all the contributors have earned PDUs for their effort. The chapter now invites articles for the next edition due in December.

The chapter board is exploring various avenues to take the message of project management across sectors. On 23 September, Mr. Manoj K. Gupta, chapter president, presented at the Power Management Institute during a conference organized by the National Thermal Power Corporation. Mr. Gupta spoke on "Challenges/Case Studies in Project Management in Power Sector."

On 28 September, the chapter in association with PMI India, participated in a daylong event on "Project Management - 2nd Edition | Delivering Value and Excellence Through Project Management in a Growing Economy." The conference was organized by the Confederation of Indian Industries in New Delhi. Chapter members, who volunteered during the event, spread awareness about PMI and PMI North India Chapter. More than 10 members volunteered for the program and earned PDUs for the time devoted. Mr. Gupta's presentation during the opening ceremony at the event was well attended by senior executives from multinational and Indian companies and infrastructure giants such as Larsen & Toubro, CB Richard Ellis, Infrastructure Development Finance Company, SAP India, Bharti Airtel, Aconex, DLF, Shapoorji Pallonji, Bharti Realty, HSBC, and 3C's.

Participants at a knowledge-sharing session organized by North India Chapter.

The chapter has been organizing regular knowledge-sharing events for members in collaboration with corporate houses. On 30 September, there was a knowledge-sharing session on "Project Management in Cloud Computing" in collaboration with IBM India. The aim of the event was to provide project management professionals a clear understanding of cloud computing and project management methodologies and best practices for cloud-based projects. Over 140 practitioners and budding practitioners attended it.

In other news, the chapter launched a membership awareness campaign to win back members who were either members earlier or members of PMI who are not aware of chapter membership. So far, the campaign has helped bring 42 members back to the fold, with total membership rising to 834. The chapter has also started a new online initiative to educate

members about the chapter and answer their queries regarding membership status. The link is: <http://www.pminorthindia.org/Membership/MembershipStatus.aspx> The website now also provides a link for "Quick Renewal of Membership."

CHENNAI CHAPTER

Project Management in Mobility Industry

The first conference on project management for the automotive industry took place in Chennai on 30 July. The conference, "Project Management – Fuelling Success of Mobility Industry," was jointly organized by PMI India and SAE India (The Engineering Society for Advancing Mobility Land, Sea, Air, and Space).

Mr. Raj Kalady, managing director, PMI India, inaugurated the conference. Mr. Karthik Ramamurthy, president, Chennai Chapter elucidated the relevance of project management in the mobility industry in today's times. He spoke about the four pillars of PMI—research, standards, credentials, and education. According to conference chief guest Dr. V. Sumantran, executive vice chairman, Hinduja Automotive, Indians have an intrinsic project management capability.

Some of the interesting project management practices that emerged during the conference were: how Toyota pioneered the creation of cross-functional teams to gain greater success in

Dr. V Sumantran (second from left) with PMI members and Mr. Karthik Ramamurthy, president, Chennai Chapter (extreme right).

projects, Tata Motors works on two extremes of a spectrum—the most frugal Tata Nano and the most plush global Tata Aria, and Project Sunrise, which is a joint venture between Nissan and Ashok Leyland focused on frugal engineering. Experts spoke about virtualization of manufacturing processes at the next big trend in the future. This will open the doors for India to contribute to global projects.

There were two panel discussions on "Project Management Challenges in New Product Launches" and "The Bottomline Impact of Project Management." In a session on project management in aerospace, Mr. Bala Bharadwaj, managing director, Boeing India, highlighted the reasons why projects fail, such as lack of an understanding of requirements and inaccurate estimation.

On 6 October, PMI India and SAE India signed a Memorandum of Understanding (MOU) in Chennai to facilitate the utilization of complementary capabilities of both the organizations for advocating, promoting, and the institutionalization of the profession of project management across organizations within the mobility sector. PMI and SAE India will jointly work toward identification and development of training modules, tailored to the needs of government departments, public sector undertakings, and corporates.

The signing ceremony took place before the inauguration of the 16th Asia Pacific Automotive Engineering Conference at the Chennai Trade Centre. The MOU was signed by Mr. Raj Kalady, managing director, PMI India, and Mr. R. Dayal, president, SAE India & executive officer, Maruti Suzuki.

During the chapter's annual general meeting, there was a presentation on "Skills to Take You from Good to Great" by Mr. Ketharinath. According to him, projects fail due to factors such as a weak business case, poor project planning, inability to manage the triple constraints, and inattention to human aspects. Project managers are sometimes unable to connect with stakeholders and see the big picture, or fail to resolve conflict, negotiate, and manage change. Successful project managers envision the big picture, deep dive beyond the scope of the project, and connect project scope to the overall organizational strategy. To make the transition from good to great, a project manager needs people management skills, general management skills, and core project management skills.

Mr. Ketharinath said project managers also need to develop conflict management skills. Conflict management involves implementing techniques such as avoidance, withdrawal, domination, and capitulation. The routes to manage conflict are by unilateral power play, referral up the chain of command, negotiation, mediation, arbitration, and litigation.

He spoke about the four stages of negotiation and that a leader must go through all the stages for effective conflict management. The four stages are preparation by finding out what the person wants, sharing information, bargaining to build a compromise, and closing and commitment.

PUNE-DECCAN CHAPTER

Agile Tour 2011

PMI Pune-Deccan Chapter organized a series of talks and discussions in support of Agile Tour 2011 on 15 October. Agile Tour is an international confluence of events that promote agile project management and is hosted simultaneously in cities around the world. At the global level, the objective is to create synergies for a "better agile world." At the local level, organizers reach out to local companies to adapt to agile the right way. Visit www.agiletour.org for more details about this initiative.

Agile Tour is an open forum for anyone who wants to learn about agile project management. The Pune event, put together by chapter volunteers Mr. Ronald N. Naik, Mr. Gaurav Chhaunker, and Mr. Vickhram B. Sanap, attracted project managers, agile coaches, independent software developers, and entrepreneurs. Representatives from as many as 35 companies and around 90 CXOs and senior executives attended the daylong event. There were 12 speakers in all who took the audience through various aspects of agile project management.

It was a first of its kind event for Scrum evangelists in India to get together and listen and share information on Scrum. The event featured paper presentations, guest lectures, discussions, and demonstrations from Scrum practitioners from across India. The event had three streams, "Learn the Ropes" or basics of Scrum, Kaban, XP, and Lean; "Big Agile" or stories of scaling Scrum and agile in large organizations; and "Change Management" or how to manage change in agile project management.

Mr. Madhur Kathuria, chairman, India Scrum Enthusiasts Community (ISEC), presented the keynote on "Coaching Agile Teams." His talk centered on the finer aspects of coaching teams to follow agile project management.

On 17 September, Mr. J. R. Tanti, managing director, Synefra Engineering & Construction, delivered the keynote address at the chapter's 85th monthly seminar. Mr. Tanti spoke about how the Suzlon One Earth Campus, developed by his company, was "project managed" to turn a vision into reality. The seminar attendees got to visit the campus after the session. The event was held at the Suzlon One Earth Campus.

Synefra has developed the 820,000 sq. ft. LEED Platinum and Griha Five Star rated campus in Pune. Mr. Tanti said this is the highest green building certification by any corporate campus in the country. This campus recently received a Five Star under the "Office Development" category that suggests that it is one of the best equipped campuses in Asia Pacific.

Mr. J.R. Tanti speaking at the Suzlon One Earth Campus.

The chapter has launched an initiative called Innovation and Operational Excellence Forum (IOEF) to provide a cross-industry learning platform to professionals. Through IOEF, the chapter invites experts to offer their insights on the use of different tools/approach to achieve innovation and operational excellence at the workplace.

In August, IOEF organized a session on "Six Sigma: Operational Effectiveness and its Usage in Project Delivery Cycle" by Mr. Sarang Deshpande.

In September, there was a session by Mr. Harish Honwad, general manager, Persistent System, based on the Theory of Constraints professed by Dr. Eliayahu Goldratt in his bestsellers—"The Goal" and "Critical Chain Thinking."

The chapter organized a volunteer orientation meet on 25 September where senior members of the board provided insights on various benefits of volunteering. Mr. Honwad gave details about the CXO Club for project management training. Mr. Girish Kelkar, chapter president, and Mr. Rahul Sudame, also spoke about volunteer opportunities in the chapter.

In October, Mr. Kelkar, who heads IT at Power Exchange India, presented on "Transformation from Individual Contributor to Manager of Others: A Perpetual Challenge."

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