

Report on FICCI-PMI Recommendations on
Project Management
Leveraging the Science and Art of
PROJECT MANAGEMENT to realize *Make in India*



Disclaimer

This report has been published by Federation of Indian Chambers of Commerce and Industry (FICCI).

All the recommendations included in this report have been reconstructed based on the FICCI and PMI research on Project Management and analysis of papers presented at the FICCI-PMI Symposium on Project Management Practices 2015 held at Federation House, New Delhi on March 10, 2015. All papers were independently peer reviewed, by at least two qualified reviewers.

The opinions, advices and information contained in this publication do not necessarily reflect the views or policies of FICCI members.

Whilst all due care was taken in the compilation of this report, FICCI does not warrant that the information is free from errors or omission, or accept any liability in relation to the quality, accuracy and currency of the information.

Foreword




With the intent of making the country a manufacturing hub for domestic and foreign companies, Hon'ble Prime Minister of India launched the 'Make in India' campaign rolling out a red carpet to attract industrialists to make India a global manufacturing hub, to help create jobs and boost economic growth. Prime Minister's ambitious plan to grow the manufacturing sector's share in the GDP from the current 15 to 25 per cent and make the country an attractive investment destination is not going to be easy. Even though array of measures like single-window clearances, minimal procedures and cutting out of certain red-tapism have been taken, there are many other challenges on the way including infrastructure gaps, labour issues, skilling, deficient tax structure and slow decision making. Aspirations from the program will be fulfilled when certain challenges are addressed on priority. The government is closely looking into all regulatory processes with a view to making them simple and reducing compliance burden on investors and has initiated many policy amendments on various fronts. All the changes whether on the policy front, simplification of processes or reducing the infrastructural gap need to be approached with a project management mindset for them to bear fruit.

India's track record on project management has been a mixed bag with just a clutch of successful projects along with a large number of them being plagued with cost over runs and delays. There are very few national level successes but there are many local level success stories. With formal launch of the 'Make in India' initiative, it is all the more necessary to build project management capabilities for higher level of repeatability and predictability. Absence of robust project management capabilities often leads to project complexities not being accounted for, inadequate planning, and scheduling deficiencies relating to resource unavailability and/or material estimation. These issues result in delays which may be further compounded if they lead to considerable resource spending on heavy litigation processes. Project management, with a view to deliver on time and within cost, is a learnable capability that can be institutionalized. The Government too discerns the importance of project management capabilities. In the Twelfth Five Year Plan, a great focus has been laid on improving the project management skills across the country to get better returns from public investment in infrastructure and also in the social sectors. There is a need to design project plans and mechanisms to enable replication of project successes.

Realizing this, FICCI and Project Management Institute (PMI) have studied key project management challenges in detail and identified the top three critical areas which need attention in order to create a conducive environment for the success of programs like 'Make in India'. The areas are:

- Quality of Stakeholder Engagement and Risk Management in large projects
- Nodal Agency role in monitoring and supporting project execution
- Training and Tools for enhancing organisational project management capabilities, especially in government



As part of FICCI's ongoing commitment to capture and share global knowledge and good practices with wider audiences, we have prepared this report, 'FICCI-PMI Recommendations on Project Management: Leveraging the Science and Art of PROJECT MANAGEMENT to realize Make in India'. In doing so, we have drawn on FICCI and PMI's learning and experiences, as well as the current thinking and practices built on the basis of specific cases from the project management field. This report attempts to present a recommendatory framework on these three critical issues to the Government of India and advocates the good practice “essentials” for managing stakeholder relationships, having structured process/es for nodal agency to intervene when projects run into crisis situations, and enhancing project management capabilities in the government.

We hope this work will provide further insights to the Government on its ongoing efforts to ensure success of programs like 'Make in India'.

We extend appreciation and thanks to all the participants for their valuable contributions to the report.

Dr. A. Didar Singh
Secretary General
FICCI

Foreword



Over the last two decades, India has emerged as one of the fastest-growing economies in the world. In 2015, the nation witnessed a big push for infrastructure with a hefty Rs. 70,000 crore increase in investment to achieve the deficit target accumulated over the years. Realising the importance of nation-building, the government has undertaken large projects such as 'Make in India', 'Smart City', 'Housing for All', 'Sagarmala' and many more. 'Make in India' is an initiative that aims at promoting India as an investment destination and establishes the country as a global hub for manufacturing design and innovation. The initiative also seeks to increase the share of manufacturing to 25 percent of GDP by 2022 from the current 12 percent.


With manufacturing, arises the need for supporting infrastructure, imperative for 'Make in India' to be successful. Weak physical infrastructure has a direct impact on the growth and the execution phase, affecting the economy at large. In recent years, large infrastructure projects have been plagued due to regulatory clearances, environmental issues, problems pertaining to land acquisition and lack of skilled professionals.

Project management processes help to bridge the chasm between high-level strategic vision and successful outcomes. The government and organisations in India should realize the need for structured project management, as the situation warrants a serious approach.

The flash report of March 2015 by Ministry of Statistics and Programme Implementation (MoSPI) reveals that, out of 751 central projects, 328 are delayed. The original cost of implementation was Rs. 10 lakh crore, and their anticipated completion cost is likely to be Rs. 12 lakh crore, which reflects overall cost overruns of 2 lakh crore (20.03% of original cost).

Some of the critical causes of concern, generic impediments and challenges towards project/program success that need to be understood are mentioned below:

- a. Inaccurate assessment of project risks
- b. Lack of capability to manage project complexity
- c. Inability to correctly estimate and monitor
- d. Ineffective utilization of best practices and benchmarks
- e. Difficulty in involving multiple and diverse stakeholders
- f. Inability to synchronize project plan and execution



'Make in India' is going to be a long journey. It is expected to result in the creation of 100 million jobs. With the diversified nature of this mega initiative, we need to understand that there will be many such challenges (listed above). On top of which, India would also require skilled professionals across industries to cope with the rising workforce demand. The Anderson Economic Group's study 'Estimating Project Management Practitioner Skills Gap, 2010-2020' states that India would need almost 4,00,000 new project professionals in project-oriented industries every year up to 2020.

In conclusion, we can say that the government and the industry need to adopt global standards in project management, build transparent and trustworthy relationships with the concerned stakeholders, cultivate project management talent and employ sustainable policies for the long-term benefit. The report thus aims to impact the entire process positively by helping the government address the identified concerns using project management.

Raj Kalady
Managing Director
PMI, India



Contents

Executive Summary	07
Background of the Problem	10
Looking for a Solution	15
Launch of “Call for Symposium”	16
Success Stories	17
Methodology for arriving at a recommendatory framework	19
Findings & Inferences	20
Recommendations	23
References	29

Executive Summary

The ability to successfully manage projects is an essential skill sought in almost all sectors of the economy today, but several reports and studies have exposed its dearth in the country. The inability of project managers to deliver quality projects is attributable to a wide spectrum of factors. Undertaking a project with a clear understanding of the objectives is important and then balancing scope, time, cost and stakeholders expectations finally decide the success of the project. While project management practices do vary with size and complexity of the project, certain fundamental principles will hold true for ensuring success of most large projects. Considering the fact that time and cost overruns, and project failures are such a common occurrence in contemporary India, there is an urgent need to understand the principles and practices behind successful projects, and develop sound project management practices for effective project delivery.

Looking at India's project management scenario over the last two decades, despite visibly successful projects, there are still a large number of projects that are plagued with time and cost overruns. The discourse has shifted from convincing organisations and institutions on the benefits of applying project management practices and frameworks to how do these organisations and institutions build project management capabilities. With the announcement of the government's new, pro-manufacturing 'Make in India' policy, it has become inevitable to develop projects management capabilities particularly at the organisational level to generate desired results from the initiative.

Make in India is an important initiative for the country, at the same time we need to be aware that initiatives that one has and the results that one needs to have, project management is the bridge that connects the two. It is crucial to improve the business regulatory environment with speeding up of clearances for goods to be manufactured in India. At the same time, we need to understand, what happens to the goods that are manufactured in India? How do they reach the end consumer or the ports in case they are to be exported and how fast they reach there? So for 'Make in India' to be truly successful, we need to look at the situation from a comprehensive perspective to ensure an all round development of infrastructure.

Initiatives like Make in India, Digital India, and Smart Cities have set the direction for economic growth as well as for inclusiveness and development. For truly realising the objectives of these initiatives, it is essential to apply project management aspects of planning, monitoring and taking corrective action during execution by laying down transformational leading indicators as compared to taking corrective action at the end of the project/program.

With this intent, FICCI and PMI collaborated on this common goal to discover broad areas where decreasing the

gaps between the as-is state and to-be state would create a conducive environment for large programs (such as Make in India) to be a success and come up with a proposal on key findings and action plan on practices that provide an insight into the 'how' of closing the gaps.

The methodology adopted was a combination of primary and secondary research including launch of an open call for papers, scanning of FICCI & PMI research studies and many global research reports on project management followed by a final consultative symposium organized on March 10, 2015 to discuss and validate the findings.

A deductive approach was adopted to explore top priority areas (described in following sections) based on the learnings from research done on new project management practices and understanding gained from existing practices built on the basis of specific cases of projects undertaken in India (invited through call for papers campaign). Several rounds of discussions took place with the authors of these contributions to develop ideas on mature ways/practices of managing projects. This was done by evaluating the importance given to the application of project management principles in projects conducted by the private and public sectors in India. A lot of focus was put into making the authors flesh out the 'how' were they able to tackle issues in their situations/areas and detail out the process followed. To get a deeper understanding of the common problems facing most projects, particularly government-sponsored projects, we also consulted with project management experts from government and industry members. All these discussions, research and ideas were distilled to put them into a recommendatory framework for presenting to the government.

Based on a synthesis of learning from global best practices identified by PMI, analysis of contributions received from authors and discussions with experts, both FICCI-PMI have come up with the following recommendations on three critical issues namely:

- Quality of Stakeholder Engagement and risk management
- Nodal agency role in project monitoring and execution
- Training and tools for enhancing organisational project management capabilities.

The intent of these recommendations is to build project management capabilities and thus reduce the gap between the as-is and to-be states to create a conducive environment for programs like Make in India to succeed. The recommendations were unveiled at the 'FICCI-PMI Symposium on Project Management Practices', organized by FICCI in partnership with PMI, India, on March 10, 2015 in New Delhi:

1. Framework and implementation plan for continuous improvement in quality of stakeholder engagement and risk management in large projects
2. Need for a nodal agency to monitor project execution at every stage and provide support for on time completion, especially to intervene when projects run into problems and to pick up signals for proactive action in future
3. Training and tools for enhancing organisational project management capabilities especially in government.

This report authored by Federation of Indian Chambers of Commerce and Industry (FICCI) and Project Management Institute (PMI) explores these recommendations made to Government of India in detail, and demonstrates how addressing these issues can positively impact project and program outcomes with specific reference to real life instances from the field.

Background of the Problem

With progress in research and development and changes in the technological landscape, challenges in large capital projects have grown multifold in the last few decades. Growing budgets, varied stakeholder interests often colliding with each other, and unknown risk factors are leading to higher complexity. There is a strong need to reinvent project management so that it becomes more adaptive to the environment in which the project is being planned and executed. Project managers must reflect on real scenarios and constantly stay ahead of the learning curve.

The field of project management is unceasingly evolving in terms of knowledge and applied practices. Globally, new project management skills are being continually upgraded and successfully implemented across industries. Amidst the ever changing external and internal business environment, meeting the increasingly high expectations of project stakeholders has become a challenge even for seasoned project managers. With the growing complexity and size of projects, as well as a shortage of skilled professionals, organisations are seeking innovative ways to overcome these challenges.

Below excerpts are drawn on insights from FICCI & PMI research on the state of projects globally and in India (successes, failures and gaps) that highlight challenges faced by project managers in the current scenario.

Effectiveness of Project Management Office

Lack of effective project monitoring is often considered a key factor in time and cost overruns. Hence, monitoring and reporting and its quality are necessary for meeting project outcomes. It also helps in risk identification and provides adequate guidance and information for timely decision making. This task is one of the primary responsibilities of Project Management Office (PMO) or Project Management Unit (PMU) for the Indian context.

Typically responsible for project and program delivery management and centralized within the organisation, PMOs are well-placed to be the conduit for executing an organisation's portfolio of projects and strategic initiatives. However, research reveals that PMOs are struggling with defining their role within organisations and demonstrating their value, despite evidence suggesting that PMOs offer a suite of benefits to organisations that champion them. Despite the perceived need for PMOs, their ambiguous role limits



their effectiveness hence traditional PMOs have become paper tigers, ineffective at managing programs to achieve results.

Various types of PMO structures exist and act in different ways, perform different tasks and implement organisational strategy in varying ways. However, there is no agreed nomenclature that identifies, defines or separates these different types of PMOs. There is no formalized model and no standard consensus on the “right” form of a PMO. There is also little agreement even on fundamental notions, such as what the letters “PMO” actually stand for. Project teams that have adopted PMO feel that it helps in ensuring successful implementation of projects through deployment of project management best practices. PMO also helps in proactive risk identification and monitor and report on project progress for timely decision-making.

Despite the fast growth in PMO recognition, organisations have not extracted the full benefits from the PMO, especially in cases where PMOs lack cohesiveness, direction from top managers and clarity of purpose to work efficiently and create value. The way they are structured, the power and influence they wield and the goals and objectives they set out to complete can vary dramatically.

Although, Indian organisations have widely adopted the route of having external/independent PMOs due to the shortage of qualified project management professionals, the PMOs are not able to function to the desired level of capability.

Quality of Sponsor/Stakeholder Engagement and Risk Management

In addition to measuring project performance through the efficiency matrix on parameters like scheduled delivery dates, budgeted costs, yield, and other efficiency measures, the impact of the project on stakeholders and how well their expectations were managed should also be measured.

FICCI and PMI research on Stakeholder (includes sponsor) Engagement reveals that having actively engaged stakeholders is the top driver of project success. The research also shows that even though the importance of engaging stakeholders is appreciated by organisations, there are still not enough structured practices through which organisations engage with them. Having no structured practice also inhibits the organisation's capacity to continuously move to a more mature state and this may impact outcomes of large projects/programs. The research has come out with three primary factors that can limit organisations to effectively engage with stakeholders:

- Stakeholders being overextended with primary/other work
- Communication gap between project implementers and stakeholders
- Lack of professional development of stakeholders

Organisations that have comprehended the importance of actively developing and sustaining relationships with affected communities and other stakeholders throughout the life cycle of their projects, and not simply during the initial feasibility and assessment phase, are reaping the benefits of improved risk management and better outcomes on the ground. It has become imperative to institutionalize risk management as a process in prevention, identification and mitigation of risks associated especially with projects having diverse and large number of stakeholders and all of them having their own vested interests in the project outcomes.



Lack of Project Management Capability/Talent

As reported by PMI's Pulse of the Profession In-Depth Report: "The Competitive Advantage of Effective Talent Management", March 2013, between 2010 and 2020, 15.7 million new project management roles will be created globally across seven project-intensive industries. Along with this significant job growth, there will be a momentous growth in the economic footprint of the profession, which is slated to grow by US\$ 6.61 trillion. While these figures are impressive, if organisational leadership fails to equip employees with the skillsets required to fill future project management roles, US\$ 344.08 billion in GDP will be at risk.



The new triple constraint of project management skills

Given the number and scale of projects that are currently being undertaken in India, required numbers in terms of trained manpower are not available in the country. Talent management has not been given a priority and project management is still treated as an intuitive process with little recognition of formal training need. The project manager is taken as a task manager. Indian project managers (especially in government) have acquired project management skills primarily through past experiences and project exposures. Although, a rich industry experience helps in gaining oversight, in today's rapidly changing world and evolving technology, there is compelling need to impart formal training to project managers and regularly update their skills. Training will not only help managers in their day to day work but also equip them to handle new challenges in the most efficient way.

Wherever focus is put on enhancing project management capabilities of an individual, organisations need to build 'Business Capability' in project management in parallel. Harnessing the potential of project management doesn't happen overnight, and it cannot be confined to the project team. Organisations must actively work to shape mature project management practices and integrate it across all levels of the organisation. Commitment to capability development through project management advocacy, awareness and adoption will improve the project delivery scenario in Indian industry.

Capability of Supply Chain Partners

It has been observed that there are wide variations in capabilities across the Project Supply Chain including executing agencies or sub-contractors. Coordination, Integration and Capability Building of Project Supply Chain is a daunting challenge.

Managing multiple stakeholders for large projects requires effective coordination and systems/procedures to ensure consistency. There is need to institutionalize project management by integrating it through the value chain and following an integrated execution approach by creating standard operating procedures and templates across its divisions/partners.



Looking for a Solution

A very significant part of the project management field requires logic and structure, whether it is to make task lists or manage project dependencies. As a discipline amenable to scientific management practices, project management best practices have been encapsulated in Gantt charts, PERT charts, earned value calculations, risk management techniques, contingency planning, etc. Factual data enables measurement of project progress, estimation of time to completion and calculation of costs.

There is also something about projects that enforces the value of relationships, diversity in approach, and communication effectiveness. The art of project management revolves around inspiration, communication, team building, leadership and empathy. A project falling behind schedule needs improvisation fuelled by on-your-feet thinking. As priorities shift or situations change, the skill to discern through multiple courses of action comes into play, as does the ability to determine which information to communicate, when and to whom.

Projects are considered successful if they are completed on budget, as per scope, and on schedule and more importantly when desired objectives are met, and project outcomes are to the satisfaction of the stakeholders. This is not easy, but neither is it impossible. It all comes together with the art and science of project management combined with a supporting eco-system within which projects are conceived, nurtured and brought to fruition.

In our country examples of large and complex projects being delivered and meeting all the success parameters mentioned above are few and far between. Is this attributable to project managers not being able use a judicious mix of both science and art aspects of project management ? In order to find answers to this FICCI and PMI collaborated on this common goal. The underlying intent was to discover project management practices that demonstrated how project managers combined the use of logic and structure while managing the eco-system around the project which is inherently not structured. The insights provided by these practices will bring more understanding on how organisations and project managers leverage the science and art of project management to ensure that large programs succeed and meet the success parameters of time, cost, quality and objective achievement.

High level activities of the FICCI-PMI initiative include:

1. Identifying problem areas/gaps in project management through desk research
2. Launching a platform for consolidating best practices

3. Organizing presentations from the field showcasing success stories that illustrate achievements and discussing the examples thoroughly to distill learning in a form that can be used in diverse situations
4. Developing a methodology to structure the various aspects of the success stories, the principles/practices underlying the success, and their replicability
5. Drawing out findings and inferences from the success stories, documenting the learning in the form of recommendatory framework to deal with the critical issues
6. Presenting the documented learnings to selected groups of experts/audience to validate the findings and receiving feedback for improvement for further roll out

Launch of “Call for Symposium”

A Call for Contributions campaign was initiated three months prior to the Symposium to consolidate latest success stories from the field. Dissemination of the Call for Contributions was done to a wide selection of audience from project management practitioners from all sectors to government, NGOs, academia, development agencies etc. Covering such a variety of potential authors ensured the diversity of inputs in terms of sectors and contexts. At the Symposium, the focus was on showcasing those shortlisted case studies which exemplified application of project management practices to address the critical challenges and were demonstrating how to balance structure within the project eco-system. The theme for the Symposium “*Project Management- The Impetus for Make-in India*” was appropriate for the current situation in India. It addressed many issues concerning the transformation of mindsets and preparing professionals to understand and improve project management competencies.

Contributions were invited under the following focus areas for presenting at the Symposium:

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

Over 30 case studies from both public and private sector were received through the call for contributions campaign. The case studies covered diverse topics ranging from having institutional mechanisms for monitoring and fast tracking projects especially large and complex ones to tools/techniques used. Change management actions for stakeholder analysis and on-boarding, and for mitigating project risks. Building Project Management capabilities at the community level to ensure project sustainability and leveraging technology for project execution and delivery. A scientific committee comprising of eminent leaders from organisations associated with the project management profession was formed to filter through the cases received and shortlist the most relevant ones while providing guidance for developing the presentations in line with the symposium objectives. To channelize contributions in the desired direction, the process of finalizing the presentations went through two stages: first short listing of abstracts, and second guidance to successful authors based on first draft of their presentation.

Success Stories

Out of the 30 contributions received, nine papers were shortlisted by the scientific committee based on their potential alignment with the Symposium objectives. The Symposium was held at New Delhi in March 2015 where authors of the nine papers presented their work to an audience of 100 participants representing government, industry and academia. Presenting authors were invited to compete for best presentation awards in various categories aligned with the objectives of the Symposium. The nine papers invited for platform presentation during the symposium are listed in Table I and content of the papers presented is briefly described in the paragraphs that follow.

Table I: List of Success Stories

#	Paper Title
1	Empowered Project Management Office- The Success Mantra for E-governance Projects
2	Crisis Management: What works?
3	Delivery Excellence through Contemporary IT PMO Practices
4	Getting Internal Stakeholders On board: Aligning expectations to the program outcomes
5	Are Stakeholders at Risk?
6	Strategies for Successful Software Development: Risk Management in Large Projects
7	Building Project Management Competencies: A Govt. of Karnataka- PMI Bangalore India Chapter Initiative
8	Project Sustainability Management through Stakeholder Engagement and Capacity Development: The Case of Jalswarajya Project
9	Cloud Computing for Agility in Government

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

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

Crisis Management: What works?

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

Delivery Excellence through Contemporary IT PMO Practices

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

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

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

Are Stakeholders at Risk?

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

Strategies for Successful Software Development: Risk Management in Large Projects

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

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

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

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

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

Cloud Computing for Agility in Government

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

Methodology for arriving at a recommendatory framework

The methodology adopted is a combination of primary and secondary research comprising of launch of an open call for papers, scanning of FICCI & PMI research studies and many global research reports on project management followed by a final consultative symposium (organized on March 10, 2015) to discuss and validate the findings.

A deductive approach was adopted to explore top priority areas (described in following sections) based on the learnings from research on project management's leading practices and understanding gained from existing project management practices built on the basis of specific cases of projects undertaken in India (invited through call for papers campaign). Several rounds of discussions happened with the authors of these contributions to develop ideas on mature ways/practices of managing projects by evaluating the importance given to the application of project management principles in projects conducted by the private and public sectors in India. A lot of focus was put into making the authors flesh out the 'how' were they able to tackle issues in their situations/areas and detail out the process followed. It is essential to capture the stories of what works and what doesn't and the journey taken to realize that, as people learn through content. Also capturing knowledge and putting it into a context that's appealing is a skill that we want to build with the contributing authors.

To get a deeper understanding of the common issues facing most projects, particularly government-sponsored projects, we also consulted with project management experts from government and small industry members. All these discussions, research and ideas were distilled to put them into a recommendatory framework for presenting to the government.

The following table was used for analysis of papers received from the Call for Contributions to discover project management practice/s behind these successful projects.

Table 2: Template used for Analysis

#	Paper	Issue for Recommendation	Theme	Project Management Practice

Findings & Inferences

Broad areas of concern and applied project management practices/principles are summarized below:

I. Framework for continual improvement in Quality of Stakeholder Engagement and Risk Management in large projects

- Due diligence in stakeholder assessment and impact analysis is a must as there is no one size fits all strategy for meeting stakeholder expectations
- Assessment of Stakeholders and their position in context to the project/program feeds into designing the communication strategy. What is the purpose of the communication, (to convey a decision or to co create an implementation plan)? What should be communicated and to whom, how it should be communicated and through which forum?
- On identification, analysis and assessment of stakeholders, for the engagement to reach its desired outcome it is critical to choose an appropriate mechanism to inform, consult or collaborate with the stakeholders. Stakeholder influence matrix is a good indicator to narrow down on the type of mechanism
- Use of tools like Power/Influence Map, Stakeholder diagnostic, Leverage Matrix etc. supplement the quality of the Action plan and also its implementation

2. Structured Processes for nodal agency to intervene when projects run into problems and continue keeping tabs to pick up signals for proactive action in future

- PMO is ideally placed to establish a benefits realization approach and embed its processes within the program framework
- For implementation of large government programs requiring transition from existing systems while maintaining consensus amongst stakeholders and mitigating risks, it is imperative for a nodal agency like a PMO to have clarity and required authority to increase effectiveness for implementation
- To effect business change within an organisation, it is imperative to do an in depth analysis of the organisation's culture, processes, strategy, top management biases to deploy processes as per appetite and needs of the organisation
- Processes to enhance Project/Program visibility to sponsors is critical to ensure their interest and commitment for the Project/Program
- Structured meetings to freeze key requirements like processes to be followed and tools to be used before formally engaging the implementation vendor creates an environment of meeting timelines within the given quality and scope
- Crisis Resolution:
 - ✓ For institutionalizing crisis resolution processes, it is important to understand different stages of Crisis Management like Pre-Crisis, Warning, Crisis, Recovery and Post Crisis.
 - ✓ For preventive actions to be determined, a thorough analysis of the crisis by breaking it up into stages is required
 - ✓ Speedy communication and decision-making can help in resolving the crisis in a timely manner and limit the adverse effects
 - ✓ Crisis resolution may require specialized teams to be set up which specialize in handling such situations

3. Training & Tools for enhancing project management capabilities in government

- A bottom up approach is a better route for projects which rely heavily on community participation for their success
- Structured capacity building interventions built in the Project Plan is a good way to mitigate risks in such projects
- One size fits all training does not work. Process of training needs assessment is a must and needs to be supported by the involvement of top management as they are best placed to identify the pain areas in terms of capabilities
- Course assessment needs to be a transparent and encouraging process with focus on the honest feedback and not on the tool used to capture the feedback
- Use of sound technical process to bring government on board to the idea of using common and agile infrastructure for Information and Communication Technology (ICT) is a must and at the same time focus is needed on how this process is communicated

It must be noted that the aforementioned areas are limited by the content of the submissions received and research undertaken by FICCI & PMI, and the practices are not the only ways to close the gaps, as that may be a compendium of such practices but they are a good start to engage with the project management community in fleshing out the 'how' and make them available through an open source repository which can be accessed as needed by interested parties.

Recommendations

Based on the synthesis of learning from global best practices identified by PMI, analysis of contributions (received from call for papers) and discussions with experts, both FICCI-PMI have come up with the following recommendations on three critical issues as identified earlier to build project management capabilities and reduce the gap between the as-is and to-be states to create a conducive environment for programs like Make in India to succeed. The recommendations were unveiled at the 'FICCI-PMI Symposium on Project Management Practices', organized by FICCI in partnership with PMI, India, on March 10, 2015.

I. Stakeholder Engagement

There seems to be a universal acknowledgement amongst project management practitioners that stakeholders need to be engaged and managed. But there also seems to be a universal situation of projects running into problems because of inadequate stakeholder engagement. Why does this happen? Is it because stakeholder engagement is treated as a routine, mechanical task rather than a critical activity which requires creative thinking, systematic approach and genuine openness to achieve results.

Stakeholder engagement is a make or break activity that determines the final quality of the outcome. Stakeholders are real people, and there is no one size fits all approach when it comes to strategizing to engage stakeholders and collaborate in the true sense of the word. Therefore no amount of knowledge transfer can provide answers to specific situation based questions. However, the topic of stakeholder engagement has been extensively researched and frameworks are available to help practitioners find the answers for themselves.

As a matter of principle, effective stakeholder engagement requires genuine and sincere effort. If the idea is to undertake a perfunctory exercise for the sake of ticking of an activity box, no framework can be of help. Stakeholder engagement must be done with a strategic eye on the ultimate results which the project is intended to achieve, not with the tactical purpose of handling an immediate issue. Once this basic world view is imbibed and stakeholder engagement activities have been identified, the following questions must be addressed:

Do the activities include an external scan to identify the forces that could impede and those that could support the program/project?

- Those who would benefit?
- Those who would be adversely affected?
- Those likely to support and those likely to oppose?

- Were the needs of these stakeholders understood and mapped?
- How will this initiative affect these stakeholders and what is the strategy to obtain their support?
- Has a system been installed for periodic feedback from stakeholders and its consideration for designing project activities?

There are several frameworks / tools available in management literature which can be used to arrive at answers to the above questions and populate a generic stakeholder analysis table with project-specific information and develop stakeholder engagement activities. Such tools typically consist of *Stakeholder Diagnostic*, *Power/Influence Map*, and *Leverage Matrix* that help develop an Action Plan. Stakeholder engagement, however, should not be considered as a one-time activity. It is often required throughout the project lifecycle and may even be required after project completion.

While all project plans contain a section on stakeholders, the real issue is about quality of stakeholder engagement. Recommended parameters to assess quality are: range of stakeholder groups analysed and range of activities undertaken beyond exchange of information.

Range of Stakeholders analysed

Too often relationships with stakeholders are conducted in an ad hoc or intuitive manner. However, identifying and actively managing a large number of complex relationships must be carefully planned. Each stakeholder or group must be managed according to the potential impacts, risks to stakeholders, and associated risks. The range of stakeholders relevant to consider for analysis varies according to the size and complexity of project. Stakeholders can be of any form, size and capacity i.e. they can be individuals, organisations, or unorganized groups. In a typical project the stakeholders consist of Project Owners, Users, Project Manager and Project Team, Project Sponsors, Civil Society, Vendors/Contractors, Consultants and consumers. An organisation interacts with an extensive range of stakeholders who hold varying levels of interest and influence in relation to achieving the desired project objectives. Stakeholders' interests and influence can also change depending on the issue, at what point in the process they are being engaged and who is affected. There are no absolute rules in terms of selecting stakeholders for engagement. Sometimes, it is important to be as open and inclusive as possible. At other times, it is important to target engagement, to create a cohesive group that builds strong relationships and ownership. Selection of stakeholders will depend on the purpose of the engagement and the wider policy and project objectives.

Range of Activities undertaken

The core of all relationships is communication, and managing stakeholders is essentially a complex relationship. Communication also involves being open and honest about your objectives and planned activities. Organisations undertake wide range of outreach and stakeholder communication activities to inform and educate, to explain and clarify proposals and to provide opportunities for interested parties to discuss and debate on them. There are a wide range of techniques for engaging stakeholders, ranging from project specific letters/emails alerts, Questionnaires and surveys, Individual and Group meetings, Structured/ Semi-structured interviews, forums, focus groups, workshops, round-table discussions, advisory committees, and innovative practices like usage of social media tools in stakeholder engagement. There is no one right stakeholder engagement method and an organisation may choose a number of different methods at different stages of the policy or project process. Selecting the appropriate method of stakeholder engagement and the relevant tools and techniques to facilitate the engagement process can vary according to the situation, time, skills and budget. All engagement methods have their benefits and limitations and it is important to select the right one for the particular context.

II. Nodal Agency

The need for an institutional mechanism to monitor and report on the progress of large and complex projects is well recognized in the project management discipline. An empowered nodal agency is an essential part of the project management eco-system. The agency does not manage projects itself, but supports other Project Management and Monitoring Units in solving problems that are beyond the control of these units. Such an agency plays a crucial role in the success of large, complex and multi stakeholder projects. Especially in the public sector space, the outcomes are dependent on clearances from or actions of other government agencies for whom that project/program is only one activity and may not always be their key activity. Also these government agencies function in a non-hierarchical system, so it becomes even more difficult for project sponsors or implementing agencies to reach a consensus for moving forward. An empowered nodal agency can exercise influence in situations where inter agency interventions are required.

The Project Monitoring Group (PMG) set up by the central government in the Cabinet Secretariat is an example of such an agency. Considering the large number of mega projects getting held up, PMG was formally set up in June 2013 as an institutional mechanism to track stalled investment projects, both in the public and private sectors and to remove implementation bottlenecks in these projects on a fast-track basis. Only projects with issues or problems are considered for fast tracking by PMG. Since then, PMG has accepted 507 projects for consideration and successfully facilitated resolution of all issues in 207 stalled projects with an investment of around INR 7.4 lakh crores till date.*

*<http://cabsecpmg.gov.in/cabsec/index.php> March 9, 2015

It is recommended that the scope of PMG should be enlarged to include the following:

1. It should keep a regular check on efficient execution and monitoring of large public sector projects through monitoring and reporting
2. In case of any deviation from success parameters of time, cost, quality and objective achievement it should be able to intervene and work towards a solution
3. Plays a role of one stop solution when any government agency faces challenges in terms of managing the efficient execution of their projects/programs

In countries like Malaysia and United Kingdom, the government has set up organisations like Performance Management & Delivery Unit (PEMANDU) and Major Projects Authority (MPA) that proactively monitor and report on status of certain government projects.

The efficacy of such an institutional mechanism flows from the government's strategic priorities. With this strategic alignment firmly in place, the following principles should be applied to maximize effectiveness of the institutional mechanism:

Empowering the Nodal Agency

Key responsibilities of the nodal agency is to monitor and report every aspect of project execution, intervene in case of issues and build project management capabilities within the implementing organisations. For it to discharge these responsibilities, empowering the agency with the necessary administrative and operational authority is a must.

Crisis Management

Saving a ship that has hit an iceberg requires a skill set different from the one needed to steer a ship out of troubled waters. An institutional mechanism that takes up only those projects which have reported issues or problems must specialize in distinguishing between the kinds of problems that are likely to be encountered and deal with them accordingly. Crisis Management, for example, encompasses different stages: pre-crisis, warning, crisis, recovery, post-crisis, which require appropriate responses.

Alert Generation

Very often issues that are not recognized, evaluated and correctly managed turn into crisis. While it is important to build expertise in managing crisis and coming out of them, it is also important to build expertise in sensing and

preventing them. For example, use of past experience to generate alerts in respect of projects most likely to get stalled could reduce resolution time and effort. Maintaining a knowledge repository with well-designed entry and search criteria to enable efficient knowledge transfer for problem resolution is also critical.

Benefits Realization

The ultimate objective of resolving issues in stalled projects is to see that the project is finally completed and delivering the desired results. Thus, retaining on the radar projects for which a particular issue has been resolved may be needed to ensure that the project is successfully completed and it does not move from one problem to another.

III. Formal Training on Project Management

Like stakeholder engagement, training is universally acknowledged as a critical need for successful project management. Department of Personnel and Training and Department of Public Enterprises, Government of India have both recognized the importance of project management training as is evident from the circulars on such trainings to be made mandatory.

Our recommendations focus on the twin questions on what is the right kind of project management training, and how does effective knowledge transfer take place for organisational rather than individual capability? In this respect, the following five principles deserve consideration:

- Each project is unique and therefore training needs are also unique to projects; assessment of training needs is therefore a critical component for each project
- Capacity building interventions are not one time activities; they are needed at different stages of the project with content suited to each stage
- For best results, a mix of standard project management practices on a regular basis coupled with need-based project-specific technology and process training is recommended
- Formal process for assessing organisational capability in project management is required to enable effective transfer of individual learning into organisational learning; this includes learning for not only the project teams, but also project owners and sponsors
- Project management know how of our times also includes knowledge of project management tools and their use

The first principle implies that for every project training needs must be assessed and training interventions designed accordingly. The following structure illustrates how to arrive at the critical learning agenda at the project level.

Learning Agenda

Most important	Necessary Project management practices (Standard modules)	Critical Technology and processes (Project and role specific)
WHAT DO WE NEED TO KNOW		
Less important		
	A lot	Very little

HOW WELL DO WE KNOW IT NOW

In most of the government projects, engaging with multiple stakeholders, handling sponsors resistance, inadequate planning, and anticipation of risks in advance, tapping warning signals, and post implementation are biggest challenges before the project managers. Government project managers are not trained in identifying these signals proactively and there is a hesitation to learn from others experience.

Government can help in expediting the process by pushing the project management courses in the Government institutes of national repute and mandating project management training for Civil Servants managing large projects above a certain level/size. There is a need for greater degree of collaboration between the government, industry and educational institutions so as to reduce the demand supply gap for trained project managers especially in government and social sector projects.

References

1. PMI's Pulse of the Profession In-Depth Report: "Executive Sponsor Engagement-Top Drivers of Project and Program Success", October 2014
2. PMI's Pulse of the Profession In-Depth Report: "The Competitive advantage of Effective Talent Management", March 2013
3. PMI's Pulse of the Profession In-Depth Report: "The Impact of PMOs on Strategy Implementation", November 2013
4. Proceedings of the FICCI-PMI Symposium on Project Management Practices 2015. Available at <http://www.ficciqualityforum.com/htm/3aug-ConferenceProceedings-final.pdf>



Mumbai office:

PMI organisation Centre Pvt. Ltd.,
302-305, 3rd Floor, Balarama, Plot No. C-3, E Block,
BandraKurla Complex, Bandra East,
Mumbai – 400051, India
Tel: +91 22 2659 8659 | Fax: +91 22 2659 2235

Email: pmi.india@pmi.org

www.pmi.org
www.pmi.org.in



FICCI Quality Forum

Federation of Indian Chambers
of Commerce and Industry
Federation House, Tansen Marg
New Delhi-110 001 - India

Tel: +91-11-2332 5312, 2348 7209

Fax: +91-11-2332 0714, 2372 1504

Email: fqf@ficci.com

www.ficci.com