Management Problem in Manufacturing Industries & Project Manager's Pain - A real One!!

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PROJECT MANAGEMENT CONFERENCE, INDIA
A PMI Team India Event
MUMBAI 19th, 20th & 21st November 2010
Leveraging project management for excellence, growth and transformation

Contents

1.1 Abstract

Manufacturing companies in India, have recently implemented the Project Management Processes in their organization, faces with the Dilemma of project Manager's being mere the, "Coordinators", with Functional head at stronger position, and Project managers only acting as the mediators and coordinators for the day to day work. The Cross functional Team works as the Centric Function, telling PM to coordinate everything. PM has no clarity of roles with little or almost no authority. Decisions are taken regarding project without involving Project Managers, he is just told of decision and work accordingly.

This makes Project Managers only working for day –today activities and work arounds, rather than having a thorough planning. Lack of detailed Planning increases the risk of Project failures, which is why most of the project gets delayed, have cost overrun, increased Budget and results in poor quality products or services.

It is of crucial importance in the manufacturing companies that if they would like to take the benefit of the Project management, the Roles and responsibilities clarity along with Clear defined Product development system is must. Project Manager's roles must be written in Black and white with Authority defined and supported by the Management. Depending upon the Organization structure the team and Project Managers position clarity is must.

To conclude, reduce the Pain of the Project Managers working for manufacturing sectors the Project Management function can be deployed in effective way , but it requires the Management support along with clearly defined Roles & Authority of PM and systematic Product development system.

1.2 Keywords

Coordinators, Manufacturing Industries, Centric Function, Organization structure, Management Support, Product Development System

In most of the Core manufacturing Industries existing today in India, Project Management is a newly introduced function, still in the process of gaining maturity and defining project manager profile.

Working in such environment where, the definition, roles clarity responsibility has not taken the momentum, puts a program manager's work in extreme pressure leading to frustration and finally searching for alternatives.PM has been put with lots of responsibility for project with mere no Authority on the function and team from whom , he/she will be getting the deliverables. PM falls in traps of being the Central coordinating Members, rather than leading the team with the futuristic vision.

Project Manager is ultimate responsible for the Project deliverable, a complex and demanding responsibility working along with team, balancing the conflicting resources within projects , meeting project deadlines and preventing cost overruns.

Fig 1. Project Manager's working to fix up things at right place

It requires to be supported by management with horizontal authority to strengthen the PM, so that he becomes leaders for the Team, and guide it to achieve the project target.

It's been more than a decade since Project Management function is been practiced in the Manufacturing industries. In fact the whole time is spent on maturing the Product Development system, and less focus was given for maturing the Project Management function. This has put the project manager's function under extreme pressure in today's scenario's.

As per the Bull survey conducted, the major factors contributing to project failures as indicated in the Fig 2.

Fig 2. Major causes of Project Failures as per Bull Survey

Business Improvement Architect's annual research of project managers at Project World 2005 in Toronto, Canada indicated that 'Lack of Clarity in the Scope of the Project' was the top challenges organizations faces in managing projects. This concern is almost tied with 'Shifting Organizational Priorities'. The third challenge for respondents was 'Project Changes Not Well Managed' followed by 'A lack of Project Management Skills''.

All of these challenges, points to the need for greater strategic perspective within organizations when it comes to project management. Projects must be strategically aligned to support the organizations corporate strategy if they are to survive the ever-changing priorities of the organization. Here are some of the major challenges as experienced and what should be done to overcome them.

- Lack of Clarity in the Scope of the Project
- A Lack of Project Management Skills
- Project Manager's having unclear roles and responsibility
- Communication deficit
- Shifting Organizational Priorities
- Project Changes Not Well Managed
- Lack of strategic alignment
- Lack of Management support or buy in
- Lack of accountability
- Unrealistic Deadlines

Let's see each of these factors and what should be solution to overcome them.

1.3 Lack of Clarity in the Scope of the Project

The Scope Statement, once completed, becomes the basis for future project decisions including, in particular, the criteria used to determine if the project (or phase of the project) has been completed successfully. Essentially, this document will form the basis for an agreement between the project team, the project customer and the project sponsor, by identifying both the project goal and major project deliverables.

So, why their should be a lack of clarity in the scope of the project? Scope creeps gets into the program through various reasons varying from the, poor definition of scope from start, to change in market scenario, and direction from leadership. As most project managers know, an evil nemesis "The Scope Creep" is usually their number one enemy who continually tries to take control.

Fig 3 Indicates what happens to a project where a scope is not clear – life cycle of a troubled project.

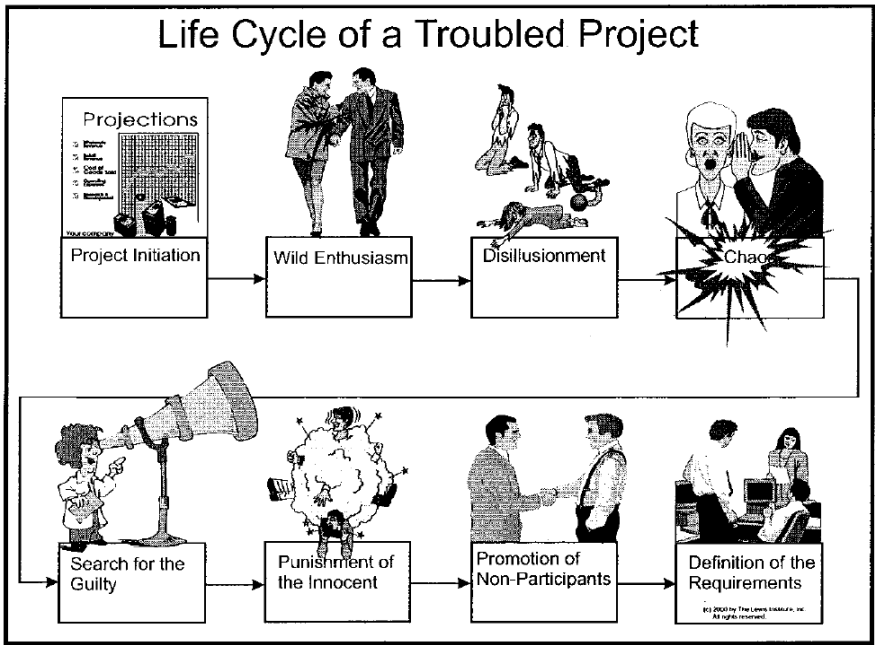

Fig. 3 Life cycle of troubled project – If Scope Definition is not clear

Solution: To bring these projects back on track, the project team must go back and define the scope of their project as well as gain a clear understanding of the stakeholders' needs. By defining scope through the planning process, there becomes greater control and the need for project change is minimized. This further reduces the likelihood of risk.

Once developed by the project team, the Scope Statement is reviewed and approved by the Sponsor. Then clarity on the scope of the project is obtained.

As the project progresses, one may find that the scope of the project has changed. To address this it is important to apply the Change Management Process. Requests for change are added as an addendum to the Scope Statement. However, the Scope Statement itself is not re-written.

1.3.1 A Lack of Project Management Skills

In most of companies, as PM being considered a non skill deptt, people who are put on the job, does not have the basic knowledge and training required of the process and systems of the Project Management system. This becomes the root causes for the planning activities not done properly. PM's not aware of the functional areas.

Solution: Many organizations have training and development departments that manage training of all levels of staff. Project management training may be co-ordinate with them or managed through a Project Management Office directly. If a Project Management Office exists, they must be involved in the design, development and execution of training as it relates to the management of projects. It is most effective if the Project Management Office implements in-house training for practical project management rather than being overly concerned with training for the purpose of acquiring certification.

The most current approach to training of project managers and team members is customized training that incorporates their organization's own methodology, tools and templates. This means using the project management methodology, tools and templates developed by the Project Management Office. This innovative training method brings project managers and their teams into a classroom where they learn the process of managing projects and also immediately apply it to an actual project they are working on.

1.3.2 Project Manager's having unclear roles and responsibility

In matrix organization the role clarity becomes a major issue with Program manager, especially when there are many horizontals having overlapping role equation. In such scenario project Manager Role is simply defined as "Works that is not done by anybody is PM's job". Where project manager's not only to fight for the project but also for his/her existence.

The cross functional team working becomes "Centric functioning team" where people communicates through PM only, as he becomes mere the postman for transferring the information from one dept.. to another. Fig 4- Indicates the communication flow in "Centric function team"

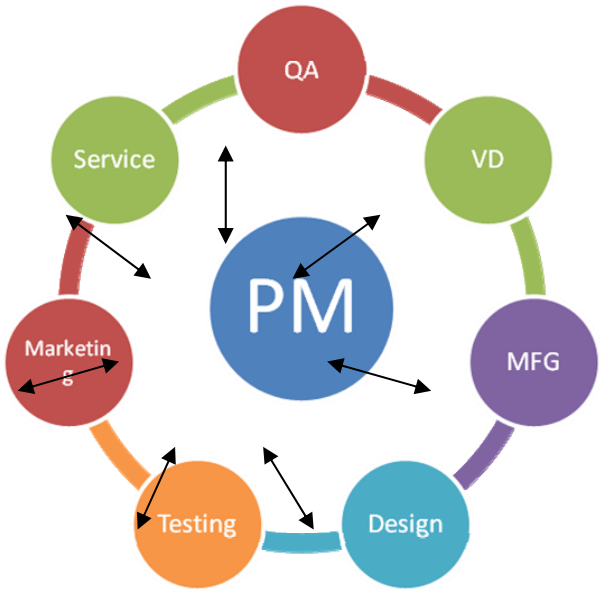

Fig 4: Cross functional team becomes "Centric function"
Communicates everything through PM

Solution : It is important that project Manager's roles and Authority should be clearly defined in Black and white along with other's stake holder's roles and responsibility. This authorization must be before or at the time of issuing project Charter. The team functioning should be directed to cross functioning rather than routing everything through PM.

1.3.3 Communication deficit

Communication breakdowns cause unclear project goals and objectives Management may rethink its goals for a project, not communicate them well and expect the team to adapt accordingly. Many project managers and team members do not provide enough

information to enough people, along with the lack of an infrastructure or culture for good communication. There could be different reasons for communication deficit some few are:

Misunderstanding other stakeholders' information needs – Misunderstanding commonly occurs when the project team doesn't understand the informational needs of other stakeholders. In this situation, information can be distributed inappropriately and inconsistently.

Using media improperly – The media selected to communicate must be able to be used by all stakeholders and project team members. It does no good to send the Microsoft project version of the work break down structure when the team doesn't understand how to read the project plan.

Isolating decision makers – The silo-end decision maker can impede a successful project. Decision makers who isolate themselves or don't respond to requests for information are a common communication barrier.

Misapplying policies and procedures – Team mates and stakeholders who don't follow the prescribed communication policies and procedures create confusion. These communications are commonly complete containing inaccurate information and are directed to the incorrect audience.

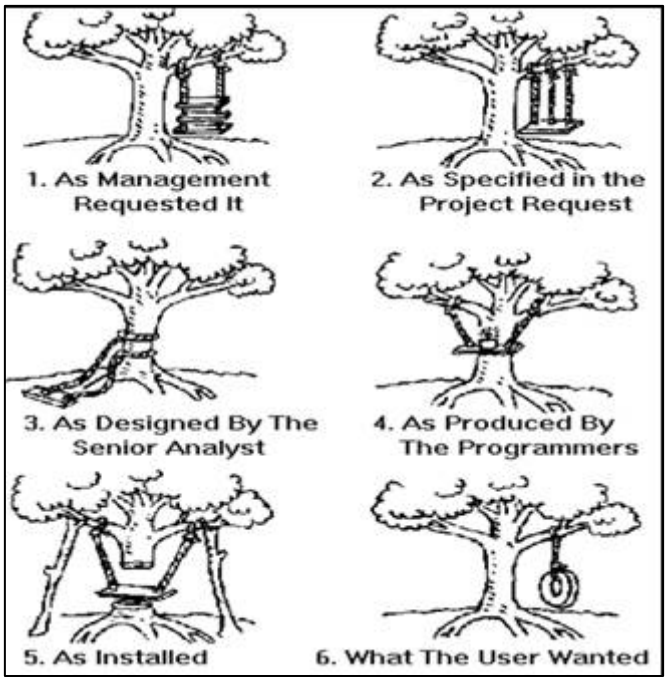

Fig 5: Indicates what can lead to communication failure in a project

Solution: Determine proper communication flows for project members and develop a checklist of what information (reports, status, etc.) needs to be conveyed to project participants. The communications checklist should also have an associated schedule of when each information dissemination should occur. All this must be planned during the planning stage and change in members must be formalized and updated in communication matrix.

1.4 Shifting Organizational Priorities

The ever-changing nature of our economies and organizations creates uncertainty on organizational priorities. One of the most frustrating experiences a project manager can suffer is managing within this environment - while the project is being implemented. We refer to this type of project change as Strategically-Driven Scope Creep. This can seriously impact the entire project.

There are a number of reasons why Strategically-Driven Scope Creep can occur:

The ever-changing nature of the organization may change the project's goal, deliverable, budget, or timeline. For example, a project that is critical today is suddenly not as important tomorrow. And the project manager is told to put it aside for awhile and work on other, newer priorities.

A change in top management may be accompanied by a change in priorities and even in the direction of expansion and other efforts. For example, a project that progressing at a reasonable pace is suddenly thrust forward. A shorter time line is forced on the project, yet all deliverables, as originally defined, must be met.

A department manager may render a project meaningless in the light of new direction, new services, new products, new technology, etc. Projects are accelerated, slowed down, cancelled, maintained but with different deliverables, etc.

Even without the influence of change, management may change their own course. If we could all get into the brains of our senior management group, this challenge would be easy to manage.

Solution: Unfortunately, the project manager has little control over these occurrences. However, the project hopefully has a clear process for managing project changes. This Change Management process is designed to assist in managing this type of major externally influenced change. Here are steps to help reduce the impact of these major changes:

Immediately inform the team...avoids adopting an anti-management attitude when your project's goal, deliverables or even its continued life is threatened. Explain why the change is occurring, and then use the change management process to manage the change.

Concentrate on executing the change, rather than on less productive and negative activities...do everything you can to channel your team's energy into the new effort.

Revise the schedule and budget...only after the change request has been approved.

Revise the project plan...and gain the team's commitment to the new schedule.

Attach the signed Change Request Form to the Project Scope Statement. The final success of a project is measured against the Project Scope Statement plus all attached, signed Change Request Forms.

If the project has been cancelled, complete a close-out evaluation report on the project to date. These projects have a funny habit of re-appearing again in one or two years. And although it may be a new team assigned to re-start the project, possibly with

different deliverables, if the documentation from this effort has been retained, it will assist this new effort enormously because the knowledge will not be lost.

1.5 Project Changes Not Well Managed

The approved Scope Statement and Project Plan initiate a Request for Change when there is a need to modify the agreed-upon project scope as defined. Scope changes often require adjustments to cost, time, quality, risk or other project deliverables. These changes must be put back through the planning process, updating plans as needed and notifying stakeholders as deemed appropriate. Corrective action is needed to bring expected future project performance into line with the project plan.

The term"Scope Change" refers to anything that will now be different to what had originally been agreed-upon in the original Project Scope Statement and subsequently the Project Plan. However, there are issues that the Project Manager and/or team will face in the management of Project Change, which will lead to an inability to manage project change. Some of these issues are:

The Project Team does not recognize that a change has occurred. They permit schedule and budget variances to occur.

Solution: Anything that alters the project planned dates; budget, deliverables, or customer expectations must be documented and approved before implementation. Do not go crazy with change requests. Generally, if there is a slippage in the schedule or budget, track these. When it becomes apparent that you will not be able to catch up on these slippages and therefore a milestone will be missed, that is when a Change Request should be completed and approved.

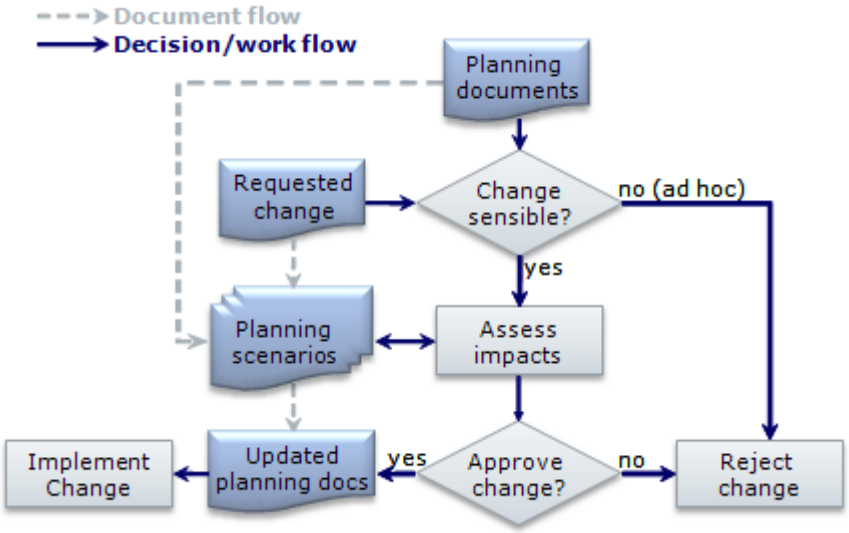

Fig 6: A well-integrated *Change control process* ensures that requested changes are assessed for their impact before they are getting implemented

The Project Team does not handle change well. They get upset when the sponsor initiates a change rather than submit it back as a change request.

Solution: The only thing that we know for certain is that the Sponsor will often change their mind for reasons that we do not necessarily understand. Nevertheless, each change can be reflected back to the Scope Statement and therefore given back to them in the form of a Change Request. Often, when they realize the impact that this change will have on the project, they decide not to proceed.

The Project Team doesn't provide options to the sponsor. This may lead to rejection of the change request.

Solution : If the Sponsor is backed into a corner and told that there is only one option and that is to approve the requested change, then the team must accept the consequences of a "No" response. However, if they provide options to the Sponsor, so if they do not like the first option, perhaps they will accept Option #2 or Option #3. Furthermore, let them know the consequences of not approving any option. How will this impact the project? The more data you can provide to your sponsor, the more likely they will give you some level of approval.

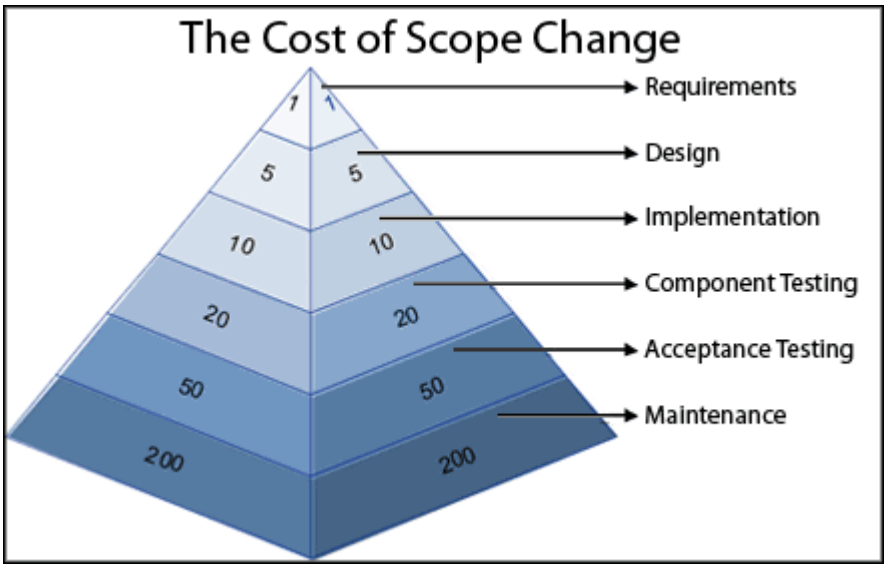

Fig 7: Relative Cost of Repairing Defects at Different Phases of a Project

Poor scope control has tremendous impact on project costs and is one of the main factors that can lead to project budget overruns and delays. As Fig 7 shows, scope changes in the later stages of a project can cost as much as 100 times more than requirement, specification and objective changes that occur in the initial phase

Lack of accountability - The project participants and related players are not held accountable for their results - or lack of achieving all of them.

Solution: Determine and use accountability as part of the project risk profile. These accountability risks will be then identified and managed in a more visible manner.

Unrealistic deadlines - Some would argue that the majority of projects have "schedule slippage" as a standard feature rather than an anomaly. The challenge of many managers becomes to find alternate approaches to the tasks and schedules in order to complete a project "on time", or to get approval for slipping dates out. An "absolute" time-based deadline such as a government election, externally-scheduled

event, or public holiday forces a on-time completion (though perhaps not with 100% of desired deliverables). But, most project timelines do eventually slip due to faulty initial deadlines (and the assumptions that created them).

Solution: Manage the stress of "the immovable rock and the irresistible force" (i.e. the project deadline and the project issues) with creative planning, alternatives analysis, and communication of reality to the project participants. Also determine what deadlines are tied to higher level objectives, or have critical links into schedules of other projects in the organization's portfolio.

Here is a case study we will go through to understand the project challenges and lessons learned from it.

1.6 Case Study : Columbia Shuttle

Columbia Shuttle

Shuttle Disintegrates Upon Reentry On February 1, 2003 seven astronauts perished when their Columbia Shuttle disintegrated as it reentered the earth's atmosphere. During launch a piece of foam insulation, similar in composition to a Styrofoam cup and about the size of a briefcase, broke away from the main propellant tank. The foam struck the left wing seriously breaching the protective panels on its leading edge (Gehman, 2003).

FamiliarProblem It was not the first time that a section of foam had broken away during launch. In fact, it had happened on every previous flight. But on each of these flights the spacecraft reentered the earth's atmosphere without incident and safely returned home. With no evidence that harm was done to the spacecraft, management assumed that it was a problem of minor significance and that it did not increase the risk level of the flight (Starbuck and Farjoun, 2005).

Technical or Management Problem?Just after the 2003 tragedy occurred many experts concluded that technology was to blame. But a more thorough and comprehensive investigation, undertaken by the Columbia Accident Investigation Board, CAIB, concluded differently. It maintained that management was as much to blame for the failure as was the foam strike. The Board described an organizational culture in which, at every juncture, program managers were resistant to new information. It was a culture in which people were unwilling to speak up or if they did speak up were never heard. In their report they wrote that the organizational failure was a product of NASA's history, its culture, and its politics. (Columbia Accident Investigation Board, 2003).

Lessons Learned While there are many lessons that can be learned from this disaster, the one that stands out is what organizational psychologists refer to as the "recency effect." It occurs when decision makers rely on only the most recent information. In this situation foam insulation had broken away on previous flights and caused no harm. To those responsible for the mission, these recent events distorted the real danger presented by this problem.In addition to the recency effect, a second factor was conservatism, a situation in which new information is ignored or given too little weight. Senior management largely ignored the data from previous flights where foam had broken away on every launch; they failed to revise their prior belief that the system was operating properly.

A third factor was overconfidence. During the flight, engineers, concerned that the foam strike may have caused a problem, asked the Mission Management Team (MMT) to request satellite imagery of the spacecraft. Management, however, was apparently confident that there was no safety issue and a decision was made against imagery. Had the imagery been authorized, and the damage discovered, the conjecture is that a rescue attempt would have had a reasonable chance of success.

A fourth factor may have been selective perception in which management of the shuttle program had shifted from an engineering focus to a managerial focus. This shift was captured by an organizational culture whose motto was “Better, Faster and Cheaper.” It created a culture in which engineering problems were less likely to be recognized and more likely to be dominated by schedules and budgets (Gehman, 2003).

There is a need for organizations to link their projects back to their corporate strategies and to train project manager, team members, and sponsors to increase the likelihood that projects will survive shifting organizational priorities. Project Management Offices and project managers must understand how each project contributes to achieving corporate goals—which should be found in the strategic plan. What is their strategic alignment? With a process in place to manage change and risk, project managers are better able to cope and deal with these challenges. Similarly, training of Project Sponsors will help to bring them on side so that resources are allocated in accordance with project importance.

Project Manager roles clarity and authority strengthening will make project manager function a much easier and more time can be dedicated in the planning and mitigating risk, which impacts project on long run.

Project leadership is a skill that takes time to develop in a person or organization. Achieving success requires analyzing setbacks and failures in order to improve. Focusing on each project's challenges and learning from them will help to build a more capable and successful project management capability.

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1.8 Author(s) Profile :

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