

Challenges Faced by the Project Managers in IT Industry

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Project manager is responsible for success or failure of the project. The challenges faced by the project manager in IT industry are discussed in this article. The Challenges in requirements gathering, Work Delegation, Communicating with the Team, Conflict Resolution, Meeting Quality, Maintaining the Schedules and Costs, Hiring and Firing, Testing the Product and Configuration Management are explained with solutions.

Project Management is the key focus area for organizational success. The project manager's role is similar to the role of a captain of a ship. He is responsible for smooth sailing of the project and also responsible for risk management. In this article, we will see some of the challenges faced by the project managers in the Information Technology (IT) industry.

Requirements Gathering

The project manager's challenges start from gathering requirements of the project/product. Usually in Indian (offshore development) scenario, the project manager rarely gets a chance to communicate with the end-users of the project. If that happens there will be fewer chances for ambiguity in the requirements. Hence, the customer should facilitate a meeting between the project manager and the end-user.

Usually, the customer gives the high-level requirements to the offshore team. The offshore team will have a series of discussions on these requirements and prepare the functional specifications. In case of product scenario, the product manager, with the help of business analysts and marketing team, comes up with the business requirements for the product. These business requirements are to be converted into technical requirements and functional analysis needs to be done. Once the functional specifications are ready, the designed discussions can take place. Once the project manager gets the requirements from the customer, it is desirable to get a sign-off from all the stakeholders, so as to make the subsequent stakeholder management easier.

There are commercially available tools in the market for requirements management. Caliber RM is one such tool. Getting the timely sign-offs for the requirements documents from the stakeholders is the main challenge faced by the project manager today.

Work Delegation

Work delegation is another challenge for him, because in knowledge-based industries there is competition among the

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team members to take up the work that is more credible. When work delegation comes into picture, the project manager has to take the team members' interests and skills into consideration. This is helpful in successfully completing the project on time with good quality. Otherwise, a lot of time would be spent in fixing bugs.

Here, Responsibilities Assignment Matrix (RAM) can be used as a tool. Using this matrix, one can see the tasks and the assigned resources to those tasks in a tabular format. The software tool 'Microsoft Project' can also be used for tracking and scheduling. Resource leveling is also possible using this tool. Leveling the resources in the project is yet another challenge the project manager faces during work delegation.

Communicating with the Team

The project manager needs to communicate with the team periodically or whenever required. In many demanding situations, the availability of conference rooms or a place to meet the team is also one of the challenges of the manager. The project manager should meet the team in a convenient place. Providing a cordial environment for the team to communicate is the job of the project manager. The environment can be controlled by the project manager.

The manager should prepare for the meetings. The way he communicates with the team members, the distance, pitch, language and vocabulary are all important. He should be able to express his views clearly and concisely. The team members should be able to receive and understand the message.

Another challenge the project manager faces is untimely request for information from people outside the project. This happens because of the unclear communication management plan and incomplete stakeholder identification. At the beginning of the project, the project manager should identify the stakeholders of the project. At the same time, the stakeholder identification is a continuous process and it should continue throughout the course of the project. Based on the identified stakeholders, the project manager has to prepare the communications management plan. This plan consists of the information which stakeholders are interested in and at desired frequency. If this identification of stakeholders and preparation of communications management plan are clear and complete, untimely requests for information can be reduced.

Conflict Resolution

In high technology industries, a project manager's challenge is to resolve the conflicts between the team members. In a technical team, there is a possibility of conflicts between team members. The schedules, technical issues, project priorities, resources, cost and personality differences are some of the reasons for conflicts. The manager is not responsible for resolving conflicts. The team members who are in conflict are responsible for resolving the conflicts for themselves. The project manager only can facilitate the sessions in which team members can discuss and resolve their conflicts. Some of the conflict resolution techniques like smoothing, confrontation, compromise, withdrawal and force can be used. Among all the conflict-resolution techniques, confrontation is the best one. It creates a win-win situation for the people in conflict. It brings all the facts and figures into picture and resolves the conflict.

Usually, in technical discussions, the team members get into conflicts. For example, one team member may want to use C++ while another wants Java for implementation. This results in a conflict and the project manager has to facilitate sessions for them to resolve their conflicts.

Meeting Quality

Maintaining good quality of the deliverables is another challenge for the project manager. Even after having significant rounds of reviews of the deliverables, sometimes the product does not meet the quality criteria. Review efficiency and effectiveness are very important for product development. For example, number of pages of source code reviewed per hour indicates the review efficiency. Review effectiveness is evident with reduction in the number of bugs in the product and extendability of the code in near future.

It is best practice to conduct internal and external quality audits to the project in question to maintain the consistent quality in deliverables. The audits result in Non-Conformance (NC) reports for the project. The main challenge of the project manager is to work on and close the NC reported. Usually, these NCs will be reported in senior management review meetings. The senior management takes these NCs as a benchmark in judging the quality of process involved in the product development.

The project manager or concerned team member is responsible for closure of the respective NCs. These NCs opened and closed status will be maintained by the quality audit tools. The project manager's challenge is to keep the NC count to minimum possible number, so that the project won't get special attention from the senior management.

Maintenance of the Schedules and Costs

'Scope, time and cost' are the triple constraints for any project. In a program, the delay of one project may delay the entire program, which may have financial impacts on the company. Hence, the project manager all the time tries to execute the project within the given time. The delay in schedules may lead to cost overruns. Hence, keeping to the schedules is another challenge for the project manager.

Other extended constraints such as customer satisfaction, risk and quality also have the effect on the project, if there is any change in the triple constraints. The project manager's challenge is to get more customer satisfaction for his project. He has to work towards getting good customer satisfaction rating. This is possible once the project is completed within budget and is executed with good quality in the given time.

Hiring and Firing

Usually, the project manager should recruit the team members, who meet the requirements. The team size will be maximum during peak time of the project. The project manager has to release the team members, when they are done with the deliverables. Conducting performance appraisals and giving promotions, transfers and additional responsibilities are all part of project manager's job. The challenge is to meet expectations of his team members with respect to compensation hikes and providing benefits.

From the executing company point of view, the project manager has to keep the costs under the budget. In project-oriented organizations, the team members won't be having

any home department to go back to once the project is completed. Once the project is over, they have to move to another project.

In current days, acquiring a competent team is the main challenge for the project manager. Acquisition of the key team members happens through negotiation in big organizations. Hence, the project manager has to negotiate with resource managers and his peers to acquire the team members. Once acquisition is over, the manager has to train team members with the latest technologies. Finding the team members' skill level and gaps to meet the required level are responsibilities of the project manager. Once gaps are identified, the project manager has to provide training for the team members to make them productive.

Another challenge the project managers face in Indian IT industry is abandoning work by the team members. That is, before completion of the project, the team members may leave the project or the organization without completing the work assigned to them. This needs to be attended to by the project manager and it may lead to delayed schedules and overrun of costs which results in poor quality of the product.

Testing the Product

Non-availability of user environment to test the product, during the system test time is another challenge for the project manager. Because of this, there can be many surprises during 'user acceptance testing'.

User acceptance testing is generally done by the customer. The challenge for the project manager is to get the user acceptance for the product or the result of the project. This is possible only with the frozen requirements and sign-off for main deliverables at each phase of the system's development life cycle. If there are any changes in the requirements, there should be a Change Control Board (CCB) at the executing organization that handles such requests.

Configuration Management

In a product kind of scenario, one needs to be concerned about different versions of the product, which comes out. The project manager faces the challenge of making the configuration management simple. He should be able to retrieve the respective versions of the product from the version control system easily. Another challenge that he faces is to release patches for specific product releases based on the customer requests.

Indian Scenario

In India, many IT firms are providing Offshore Development Centers (ODC) to their customers in the US and Europe. Here, communication and virtual team management are the major areas of concentration. Sometimes, meeting customer's human resource expectations are also a challenge for senior managers in Indian IT industry. Due to the shortage of skilled manpower, many firms are spending millions of dollars on employee technical training programs.

Young engineers want to get the global exposure quickly at a very early stage of their career. Meeting their on-site dreams and objectives is another challenge being faced by the project managers today. Due to the economic boom, attrition rate in the Indian IT industry is not going down. We should try to keep this rate low for the benefit of both engineers and the Indian IT firms. ❖