Skills Needed for the Project Manager for the Success of Project in IT Industry

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Abstract

The need of project management is growing significantly. Still, many projects fail at a surprising rate. At the same time, chaos, the role complexity and uncertainty play within our projects and project environments is gaining recognition in both research and practice. Hence, it is time to review our understanding of project management and reflect about how we develop project managers to deal with the increasing level of chaos, complexity, and uncertainty in project environments. In this paper, we discuss about the essential skills IT Project Managers need to have and how to develop them in today Scenario, to change the challenges or risk to success. First, we describe the evolution of project management. In particular, the risk can be in many ways an Incomplete Project Plan, Not Having the Team on Board, Not Getting the Stakeholders Involved, Losing Sight of the Objectives, Overworking the Project Manager, Repeating Mistakes, An Out of Control Budget, Not Considering the Risks, Scope Creep, Lack of skills. So by developing the project management skills the project manager can control the risk factor in the Project.

Key words: Project, project management, project manager skills,

Introduction

Managing an IT project is not an easy job and today it is just like a holding a glass of water story. Information technology is especially slippery because it's always moving, changing, adapting and challenging business. Generally all projects are constrained by three factors: **Time, Cost and Scope** and for any project to be successful, these three constraints must be in parallel. If any constraint is out of balance, the project increases its chances to head for disaster. In case of IT industry, all projects move through 5 phases in the project lifecycle, i.e.

- ➢ Initiating,
- ➢ Planning,
- ➢ Executing,
- ➢ Monitoring and Controlling,
- ➢ Closing.

Each phase contains processes that move the project from idea to implementation.

However, in most of the cases IT projects fail often. According to the Standish Group, which tracks IT project success rates, only 49 percent of IT projects conducted in 2012 were completed successfully. The numbers are decreasing for a various reasons. A surprising statistic reveals the majority of IT projects, in spite of being planned, still end up not meeting shaped project goals throughout their planned course, both in terms of keeping with time and budgeting available money.

Review of literature

According to Shenrar and Dvir (2010) the goals of time and budget indicate that the project was managed efficiently. However, most of the projects are part of the strategic management of their organizations and should be evaluated based on their contributions to business outcomes (effectiveness). To Dweiri and Kablan (2006) effectiveness is measured or evaluated based on the degree of achievement of the project objectives and efficiency based on the achievement of time, cost and quality criteria of the project. The table below presents a

summary of the concept of effectiveness and efficiency for managing projects cited in the literature.

	Effectiveness	Efficiency
Patah (2010)	The effectiveness in any project is determined by how well the project contributes to the achievement of the strategic objectives of the organization	The efficiency is determined by how well the project was conducted.
Jugdev e Müller (2005)	The effectiveness means achieving goals and objectives; and both are guided by practical purposes related to obtaining successful.	The efficiency means maximizing output for a given input level.
Shenrar, Poli e Lechler (2000) apud Shenrar e Dvir (2010)	The effectiveness is strategically managed projects focused on getting results for the business and grow in the marketplace.	The efficiency is operationally managed projects focused on performing the scope and meet time and budget goals.
Shenrar e Dvir (2010)	Projects should be evaluated based on their contributions to business results.	The meeting targets for time and budget indicate that the project was managed efficiently.
Dweiri e Kablan (2006)	The effectiveness is measured or evaluated based on the degree of achievement of project objectives.	Efficiency is measured through the achievement of time, cost and quality criteria of the project.

Fortune and White (2006) conducted an extensive literature review of 63 publications focusing on CSF. As a result of their work provided a list containing twenty-seven critical factors. The following table presents the CSF identified across 63 publications in descending order of frequency.

Critical Factor	Count of citations	
Supportfromsenior management	39	9,8%
Clearrealisticobjectives	31	7,8 %
Detailed plan kept up to date	29	7,3%
Good communication/ feedback	27	6,8%
User/clientinvolvement	24	6,0%
Skilled/ suitably qualified/ sufficient staff/team	20	5,0%
Effectivechange management	19	4,8%
Competent Project manager	19	4,8%
Strong business case/ sound basis for Project	16	4,0%
Sufficient /wellallocatedresources	16	4,0%
Goodleadership	15	3,8%
Proven/ familiar technology	14	3,5%
Realisticschedule	14	3,5%
Risksaddressed/ assessed/ managed	13	3,3%
Project sponsor/ Champion	12	3,0%
Effectivemonitoring/ control	12	3,0%
Adequate budget	11	2,8%
Organizationaladaptation/ culture/ structure	10	2,5%
Good performance by suppliers/ contractors/ consultants	10	2,5%
Planned close down/ review/ acceptance of possible failure	9	2,3%
Trainningprovision	7	1,7%
Politicalstability	6	1,5%
Correct choice/ past experience of project management methodology/ tools	6	1,5%
Environmental influences	6	1,5%
Pastexperience (learningfrom)	5	1,3%
Project size (large)/ level of complexity/ number of people involved (too many)/ duration (over 3 years)	4	1,0%
Differentviewpoints (appreciating)	3	0,8%

Source: Fortune and White, (2006).

How Project management Evolves?

IT projects fail because due to a lack of enough planning. An IT organization must think the resources it needs to devote to a project, the skills set required, the team members who need to be involved, and practically judge the time it will take to implement the project deliverables. Nevertheless, with modern day Special attention being on getting more bangs for the cash, IT has to manage projects more effectively. The constant growing challenge has led much IT Industry from all across the Globe to turn to Project Management as a way to enrich IT efficiency, cut costs, and improve on project delivery in terms of time and budget.

Project Manager

Looking at the present Scenario of global IT firm, the ratio of IT projects has increased dramatically. In addition to this, with the constant increase of IT projects the call for IT Project Managers is also boomed. The IT project manager is the person who is responsible for the management of all activity related for the delivery of IT project so that it meets the expectations and customer satisfaction, within an agreed time frame and within budget constraints.

Though information technology training for IT project managers can help them enrich their technical knowledge, but may not know how company's technology fits into the bigger picture from a business perspective. The success of a project often rests on the understanding of stakeholders and management issues, rather than technical issues. That's where project management Policies becomes important.

Project management Policies addressing different areas of IT project management i.e. software, systems integration, communications and human resources can help project managers gain the experience, techniques and tools to manage each stage of project. By extending project management concepts into the IT arena, the IT professionals can enrich an understanding of the strategies essential to handle IT projects of any size.

Top ten risk in project management

Ranks	Top ten risk	Percentage
1	Miscommunication of requirements	10.53%
2	Lack of top management support	9.68%
3	Lack of technical knowledge	8.83%
4	Inadequate user involvement	6.28%
5	Unclear scope/objectives	6.28%
6	Inadequate plans and procedures	5.77%
7	Lack of client responsibility and commitment	5.43%
8	Inaccurate estimation of schedule or cost	5.09%
9	Changing requirements	4.58%
10	Lack of project management technology	4.41%

According to the analysis it is clearly shown that miscommunication of requirements ranks first and lack of project management technology rank last.

To overcome these risk the manger should have the following skills.

The Skills of a Project Manager

In order to perform the functions of management and to assume multiple roles, project managers must be skilled in both the science and the part of project management. There are five managerial skills that are essential to successful management: technical, problem solving, communicating, negotiating and conceptual skills:

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Managerial skills

Project teams involve more and more non-technical staff, and behavioral skills became equally important as technical skills. In this new environment, to be an effective project manager, may require having an understanding of general management rather than being a technical expert.

Projects are becoming more complex that it is simply no longer possible for the project manager to remain a technical expert in all aspects of the project. Project managers need to spend more of their time planning, organizing, directing and controlling progress rather than providing technical direction.

Technical skills

The project manager must have the skills to use management techniques, procedures and tools. Technical skills are related to working with processes and tools.

They refer to using specialized knowledge and experience related to project management and the specific methodologies of the project for implementing project activities. These skills are necessary to communicate effectively with the project team, to assess risks, and to make trade-offs between cost, schedule, time and quality issues.

Problem solving skills

All projects are prone to encounter problems, problems that were not identified in the risk or scope of the project and that will need to be managed accordingly, Problem solving requires a good definition of the problem that is detected early enough to allow time to respond. Techniques such as breaking problems down into manageable parts, identifying root causes of problems, analyzing strengths, weaknesses, opportunities & threats, must be mastered in order to solve problems.

Negotiation skills

Project managers spend a large portion of their time negotiating for resources, equipment or other support, and if they do not have strong negotiating skills, their chances of being successful project managers are greatly reduced. Negotiation is the process of obtaining mutually acceptable agreements with individuals or groups. Depending on the project structure and the level of authorization the project managers have to negotiate on behalf of the organization.

Conceptual skills

Conceptual skills refer to the ability to see the "big picture." Project managers with good conceptual skills are well aware of how various elements of the project environment or ecosystem interrelate and influence one another. They understand relationships between projects, the development organization, the donor organization, the beneficiaries and its environment, and how changes in one part of the environment affect the project. Conceptual skills are necessary to appropriately deal with project politics and to acquire adequate support from top management. This skill helps the project manager keep a clear vision of the ultimate goal of the project and understand its relationships and dependencies with the project's environment.

Interpersonal skills

Interpersonal skills require understanding people, their attitudes, and human dynamics. They represent the ability of a project manager to work effectively as a project team leader and to build cooperative effort with the project members and all other groups with which the project team interacts. They are most critical for effective performance in a project environment. Major interpersonal skills include: communication, team building, leadership, coaching, motivating, decision making, delegating, training, directing, persuading/influencing, negotiating, and supporting those involved in the project.

Leadership Skills

Leadership skills are essential for project managers because project managers must influence the behavior of others. Project managers require leadership skills for the simple reason that they accomplish their work through people who have faces and names. Leadership is the predominant contributor to the success of the project manager. In small projects, good leadership can succeed even in a climate of otherwise unskilled management. This skill gives the project manager the ability to articulate a clear vision and provide direction.

Communication Skills

The second most important skill, and the one in which they will spend most of their time during the life of the project. Good communications skills include verbal and nonverbal communications that enable a project manager to convey project information in a way that it is received and understood by all project stakeholders. The first essential skill is the ability to communicate. This skill is important in any endeavor but is absolutely crucial in project management. It has been estimated that project managers spend 90 percent of their time just communicating: with the project team, the customer, functional managers, and upper management.
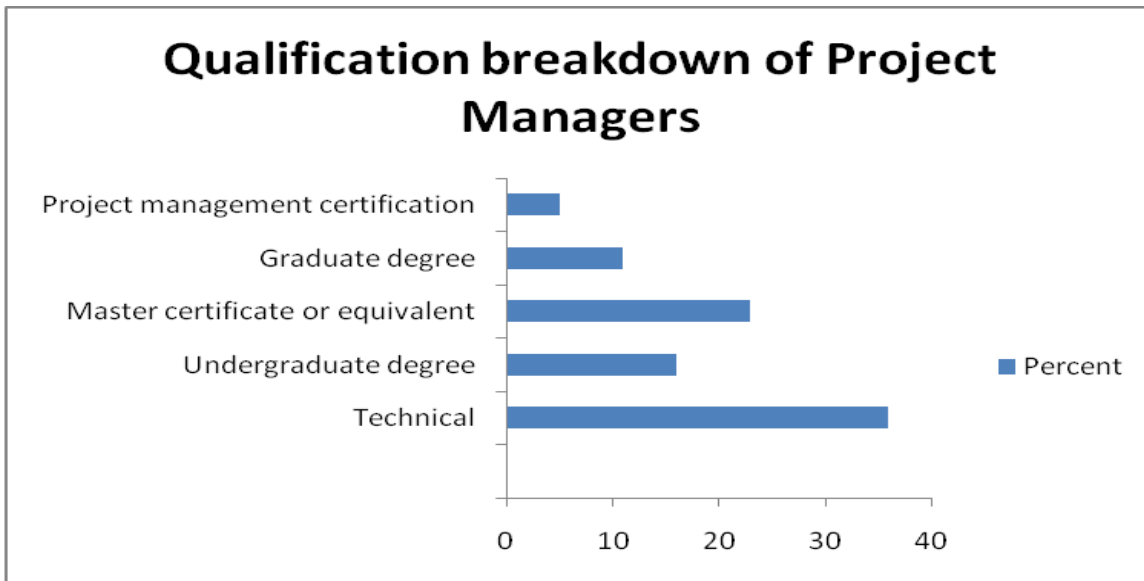
Behavioral Skills

Behavioral skills are the skills that give the project manager the ability to work with people, and the ability to motivate people involved in the project. Behavioral skills are also known as people skills and these skills are needed in development projects due to the large and varied number of people the project interfaces with.

The Skills of a Project Manager involve communication, team building, leadership, influencing, understanding perceptions and attitudes, which help improve the morale of individuals and groups. The behavioral skills include dealing with how a person relates to others.

The qualification breakdown of the Project Managers

Qualifications	Number of respondents (N=44)	Percent
Technical	16	36
Undergraduate degree	7	16
Master certificate or equivalent	10	23
Graduate degree	5	11
Project management certification	2	5

The results indicate that a majority of respondents (36%) hold the Technical qualification. Further is should be noted that 23% of the respondents has master certificate or equivalent. IT companies has only a very few project management certified persons.

The above analysis shows that Project management is a crucial skill required for execution. It is an essential organizing and managerial discipline in getting things done. In fact it can describe as an art of managing the product and service development life cycle to achieve a balance of time, cost and quality. Usually Project management follows major phases including feasibility study, project planning, implementation, evaluation and support/maintenance.

Although project management requires the use of processes, procedures and tools to manage and control work, its real value can be released when a project manager actively engages stakeholders to support and sponsor core work. The project manager must have clear understanding of the process, procedure, activities and deliverables in managing project. It includes knowledge on how to use specific tools to bring about the expected product of each project management process.

Apart from this, the project manager must have the proper knowledge of nine core areas of project management.

The nine core areas of project management are:

1. **Integration Management**: It describes the processes and activities that integrate the various elements of project management. This knowledge area includes the project plan development processes, project plan execution processes, and integrated change control processes.
2. **Scope Management**: It describes the processes concerned in determining that the project includes all the work required to complete the project effectively. Processes in this knowledge area include the initiation process as well as all the processes related to the scoping of the project.
3. **Time Management**: It describes the processes that are generally involved for the timely completion of the project. It includes processes like activity definition and sequencing processes.
4. **Cost Management**: It describes the procedures involved in scheduling, estimating, accounting, and controlling costs so that the project gets finished within the approved budget. Each process has a set of techniques that are used to turn the input into output.
5. **Quality Management**: It describes the procedures involved in ensuring that the project fulfills the objectives for which it was undertaken. Processes such as quality planning, assurance, and control are included in this area.

6.   **Human Resource Management**: It describes the processes that systematize and control the project team. People are a major part of any project. This management area ensures that all the people involved in project are used effectively for the project success.

7.   **Project Communications Management**: It describes the procedures concerning the appropriate collection, distribution, storage and final disposition of project information.

8.   **Risk Management**: It describes the processes concerned with conducting risk management on a project. It contains the processes for identifying, analyzing, and responding to project risk.

9.   **Procurement Management**: It describes the processes that purchase or acquire products, services or results, as well as contract management processes.

In today's global marketplace, speed and complexity are essential factors to survive. If we try to have close look on different projects taking place in various corners of the world, they all are being initiated under tight budgets with fewer resources than ever before. Apart from this, project-based business is growing higher and higher every single day.

 In recent years modern business are no longer based on just operations. More and more core business initiatives are now subject to a defined project plan, with specified deliverable and time constraints. These days every manager is expected to do more with less. In such an environment, a good saying for project management is, "Do It, Do It Right, and Do It Right away." Creating clear directions, timely assistance and quality outcomes are the demand of current scenario. The art of project management has gradually evolved and as a result of this today the art of effective project management requires a new type of skill base.

Project managers need to enrich a new type of skill base. It's very unfortunate that today accidental project managers are on the rise in numbers. Moreover, it is calculated that almost 2/3 of employees in project manager roles lack the necessary guidance and understanding essential to complete successful projects. A recent survey conducted by Project management Institute (PMI) research agency has shown that 57% of people surveyed agree that their projects rarely meet time, cost and quality targets. Simultaneously the importance of project management training for the project managers is on the rise.

Project management is a crucial role within a project that acts as the 'glue' in bringing diverse competencies together and coordinating the current of information between them. In fact project manager should be able to play several functions including a planner, a mentor, a manager, and effective communicator and a businessperson. The challenge for the Project Manager consists of attracting the exact resources, shaping a solid team, keeping the team motivated, meeting individual aspirations and getting the work done - all within scope, cost, time, and customer satisfaction.

Thus project management Rules & Policies can help project managers understand the what, why, and how of the discipline. Apart from this, project management training also helps these project managers in understanding:

- What are the basic skills project managers need to be effective and how to enrich them

- Why business and project alignment is essential for project success and how to get it

The basic purpose of project management Policies is to educate and train project managers with the ability to foresee as many dangers and problems as possible and restrict activities so that the project is completed as successfully as possible in spite of all the risk factors.

Conclusion

        Each Complex Problems has a simple solution. Concentrating the above nice core areas of Project Management and by practicing the below procedure,

➢   Consistency of approach – the need for consistency in using the overall project management methodology

➢ The need for a structured approach to project management in our organization

➢ Use of the overall project management methodology – it will help guide us all

➢ Focus on own role and remit as there is confusion on this issue

➢ Importance of work at the start of the project – analysis and definition

➢ Importance of reviewing projects/ monitoring

➢ Demystified project management by using the overall project management lifecycle

➢ All of the concepts – from start to finish

Due to this structured approach the Project manager can deal with any Complexity in Projects and thus the Organization can save Money, Time and Resource. This procedural approach will give project managers to develop their skill set, to deal with increase level of complexity and deliver successful projects by this triple constraint method: COST, SCOPE & TIME.

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