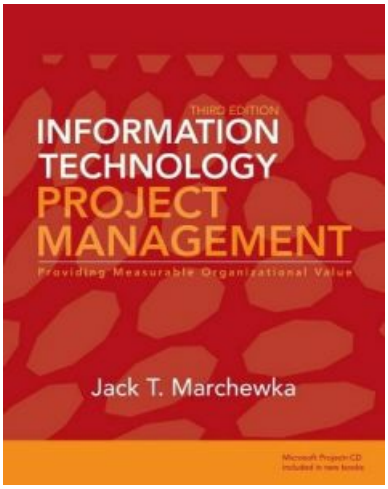

Book Information Technology Project Management

Providing Measurable Organizational Value

Jack T. Marchewka
Wiley, 2009
First Edition:2002

Recommendation

In this textbook on managing information technology (IT) projects, Jack T. Marchewka gives clear explanations of sound project-management principles. The book's organization and tone are designed for a college setting. Of course, you can read the book on your own and get a great deal from it, even without classroom discussion of its case studies and review questions. Note the bullet points that list each chapter's objectives as items to prioritize as you read. Each chapter's summary will help you determine if you picked up what the author is trying to share. Marchewka's language is formal but readable, and he focuses less on entertaining you than on communicating solid, useful information. He thoroughly describes IT projects' special considerations, emphasizing the importance of human interaction and employee training and skills. *BooksInShort* recommends this book to project managers with IT backgrounds who want to hone their people-management skills and to general project managers who want information on handling IT projects.

Take-Aways

- Information technology (IT) projects need a special touch because of their complicated mix of technical, financial and personnel factors.
- Gaining stakeholders' support improves the success rate of IT projects.
- Your "project charter" is a contract with management that summarizes the project.
- No matter how cool the technology, never lose your focus on your project's people issues.
- If project leaders behave ethically, their team members usually will be ethical also.
- Teams undertaking major IT projects should formalize their communications plans.
- Project team managers use special software for scheduling and budgeting, and for sharing information.
- Distinguish project risks that represent opportunities from risks that are hazardous.
- Establish formal procedures to alter your project or "scope creep" will undo it.
- Use a formal close-out procedure to complete your IT project and report its results.

Summary

What Makes IT Projects a Bit Different

While projects involving information technology (IT) are much like any other projects, they do have some differences. Since IT provides a support service, proponents of IT upgrades must justify their projects by showing the extra value the organization will gain. IT projects combine highly technical systems and a range of people, some of whom will be technically savvy and many of whom will simply be users of the end product. IT project managers need to be sensitive to people issues and not get sidetracked by the neat technologies they are installing. Ignoring project management formalities is inefficient, too. Introduce a new system only after considering how it will affect every stakeholder. Document and retain details of all the IT systems implemented, how to use them, who is supposed to use them and what business processes depend on them.

How to Begin Thinking About IT Projects

While every project is unique, having a proven template you can tailor to fit your project is better than trying to reinvent the practice of IT project management. Start by developing your business case for the project by working with a core team that has the expertise to make the most compelling case possible.

> "A business case provides the first deliverable in the IT project life cycle."

Begin with your project's Measurable Organizational Value (MOV), an independently verifiable gauge of your project's success, as approved by your stakeholders. Your formalized business case should include your project's MOV and an assessment of its feasibility, estimated cost and timeline, plus alternative approaches the organization could take – and why yours is best. Your framework should also discuss how your project will be financed, whom it will affect, how it will be governed and how it will support your company's strategy.

Your Project's Charter and Baseline Plan

Your project's charter states its MOV and all the resources it will require. It provides a summary of the project plan. Write the charter carefully and clearly. It serves as a kind of contract that the project's team and stakeholders can use to resolve misunderstandings. As you write your baseline project plan, focus on answering a few key questions: What are the project's objectives? What tasks does the team need to accomplish to reach those objectives? Who will perform those tasks? When will they do the tasks and how long will it take them? What will each task cost? Your project plan is tactical in nature, and its estimates should fit the broad outline of your charter.

Those Darn People Issues

Your company's machines, supplies and other assets are useless without human resources. People conceive the ideas, use the tools, run the machines, operate the programs and sell the products. As an IT project manager, you must understand how your project will affect your company and its people. A technological feature that excites an IT manager may leave others unmoved. Manage your project team not only to accomplish the technical aspects of an IT installation but also to show sensitivity to the needs and responsibilities of every stakeholder. Determine how you can finish your project with the least possible friction and how the company should train new users of the technology. Most important, ensure that management understands the true impact of your project on the organization, including the project's benefits and any likely disruption of day-to-day operations.

Managing Your Project's Scope

A project's scope is the sum of all the work and activity involved in accomplishing it. Determine an IT project's scope in detail before proceeding with it so you know its timeline, cost and likely results. Define precisely what your team will deliver, and how soon, and what resources timely delivery will require. This is an imperfect science. No one can get it exactly right. That is why your project specifications must include a detailed explanation of how to change the project's scope, who would pay for any extra costs and how you would manage people affected by the change. Without such protocols, "scope creep" may ensue as changes to your project inflate its objectives. Scope creep can extend an IT project's duration, increase its costs and erase its MOV.

Project Structure and Estimation Issues

The work breakdown structure (WBS) allows you to connect your project's scope to a detailed project plan with a logical hierarchy and compartmentalized tasks. Most companies use standard approaches to derive project estimates, including:

- **"The Delphi technique"** – Arrange for multiple informed experts to reach a consensus.
- **"Time-boxing"** – Require that work be accomplished within a specific time limit.
- **"Top-down estimating"** – Determine the duration of a project after deciding how long it should take, not how long it might take if delays develop. Be realistic.
- **"Bottom-up estimating"** – Set a project duration that's equal to the sum of estimated task durations, basing time estimates on real-world experience.

Project Scheduling and Budgeting

Once you know all a project's tasks, their durations and the resources they require, sequence them into your project schedule. Project management software has several benefits: It enables you to create schedules, spot dependencies and identify your critical path to project success. It supports collaborative work among team members sharing the same project information. You can monitor project expenses by comparing actual costs to budgeted amounts. The combination of the IT project's schedule and budget form a baseline project plan subject to upper management's approval. This baseline plan is the "yardstick" for measuring project activity. Make sure you run all changes through your change approval process or you will risk losing control of your project.

Should You Manage to Avoid All Risk?

Most people view risk negatively and seek to mitigate it. However, well-run companies accept and exploit certain kinds of business risk as opportunities for profit. So projects that pose risk may be worth pursuing, anyway. Uncertainty can put pressure on your project plan, and wrong assumptions about elements that are external to your project plan may require you to amend it. Examine the risks in a project and take action to maximize positive results and minimize negative outcomes. Prepare contingency plans to respond to poor project results.

Communicate, Track and Report Project Information

Your project's knowledge base deserves careful attention. It must be accessible and reliable. Provide a way for people to make approved changes and update this knowledge base as needed. None of this will happen by chance. If your project is large, create a formal communications plan for it. An informal communications plan will suffice for a small project. Create a schedule for the dissemination of information, including progress reports. Consider the best ways for project team members and stakeholders to communicate.

How to Manage IT Project Quality

Your project quality plan should highlight the standards each task must meet to be considered complete. This ensures that you will execute the project as planned. Many methods of scientific management have emerged over the past century. Some provide real benefits when used as intended, though misuse can produce disappointing results. The International Organization for Standardization (ISO) issues a widely known, accepted set of operating standards that managers around the world use to assure top performance. Six Sigma is a popular quality initiative that focuses on delivering products and services with fewer than 3.5 defects per million. Carnegie Mellon University promotes Capability Maturity Model Integration (CMMI), a system that recommends practices for managing software development. Regardless of the model your company uses, put clear definitions of standards and measures in your project plans and outline your verification mechanisms.

Cultural Issues and Organizational Change

If you get support from everyone an IT project will affect, your chances for success will improve. Cooperative colleagues will endorse rather than resist your project and will contribute to its success. Account for people's natural human tendency to adopt a new behavior temporarily but revert to their old ways as soon as they believe no one is paying attention. When you ask employees to change their behavior and operate in new ways, they are more likely to comply if they believe that they themselves made the decision to change and that they are helping the organization advance. Use a formal procedure to discuss and resolve any conflicts such change creates during a project. Disagreements over project implementation, for example, may require formal resolution through a procedural process. Of course, if your project fosters a spirit of mutual support and collaboration all its steps will happen much more easily.

Purchasing and Outsourcing Issues

Almost all IT projects require procurement. Three types of purchasing contracts are most common: 1) a set price or "lump sum," 2) some form of cost reimbursement plus return, or 3) pay for work time and materials used. No matter what type of contract you select, effective procurement involves these six processes: 1) proper planning, 2) contracting, 3) asking sellers for responses to your procurement request, 4) selecting vendors, 5) administering the terms of the contract and 6) closing out the procurement. If you neglect any of these processes, you are inviting problems. You may want to outsource some aspects of your project for any of a variety of reasons. Some companies outsource the entire execution of a project and have their staff members administer the work. Keep any outsourced work tightly integrated with the rest of the project, and carefully account for outsourcing expenses and their impact on your project's metrics.

The Role of Leaders and Project Ethics

While some aspects of leadership seem inborn, every leader has to learn how to lead in varying situations. The best leaders take the most effective approach based on their circumstances, the nature of the people involved and the tasks they are expected to accomplish. Possible leadership styles include: 1) compelling others to capitulate, 2) ruling as the boss, 3) working together with a loose connection, 4) overseeing a democracy, 5) setting a pace for accomplishing work or 6) leading as a coach.

> "The project plan...answers these questions: What needs to be done? Who will do the work? When will they do the work? How long will it take? How much will it cost?"

Use your emotional intelligence to see yourself as others see you and lead with more awareness. Emotional intelligence is your personal mix of "self-awareness, self-management, social awareness and social skills." Your leadership style strongly influences the culture of your team. If you demonstrate strong ethical behavior as a leader and require the same of your subordinates, their behavior probably will match your standard. Yet, members of IT project teams who share the same work standards may not share cultural similarities. People from different cultures may have different expectations of leaders. Somehow, you must remain true to yourself while providing your team with whatever it needs.

How to Begin, End and Evaluate Your Project

How should you implement your new IT system? Unless it is a completely new system and a new business process, just doing a quick cutover to the new system and dropping what you have been doing in the past is too risky. A serious glitch not only will disrupt your business processes, it also will undermine employees' enthusiasm for and acceptance of the new system. Many businesses choose to install a new system and still run the old system until the new one proves viable. Avoid any scenario that could create a chain reaction of problems that lead to disaster.

> "Projects can be terminated for a variety of reasons, but a project must be properly closed, regardless of whether the project ends successfully or unsuccessfully."

The most important aspect of closing your project is ensuring that the new system is fully documented, and that you have captured all useful information about the system, how it works and what part of your knowledge base it supports. Your final project assessment should demonstrate exactly what you have achieved, the value delivered and the business lessons learned. Deliver an honest, constructive close-out report. To make it an independent business assessment, include input from stakeholders and management.

About the Author

Jack T. Marchewka teaches Management Information Systems at Northern Illinois University. He has also taught at the Rotterdam School of Management in the Netherlands. His articles have been published in several industry journals.