

The 10.5 Essential Steps of Successful IT Projects

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(Inspired by an essay by David Hefner, Vice-President of CSC's Global Health Solution Group)

Introduction

15 years ago, Alfred Spector, President of Transarc Corporation, co-authored a paper comparing bridge building to software development. Transarc invented the Distributed File System for The Open Group and were eventually acquired by IBM where the evolution of the technology powers IBM's WebSphere product line.

Back to the premise of the paper: Bridges are normally built on-time, on-budget, and do not fall down. On the other hand, software often does not come in on-time, nor on-budget, and often does not work as originally designed. But bridge building did not always have such a stellar record - many bridge projects overshot their estimates, time frames, and some even fell down. One of the biggest reasons bridges now come in on-time, on-budget, and do not fall down is because of the extreme detail of design. The design is frozen and the contractor has little flexibility in changing the specifications.

Besides roughly 3,000 more years of human experience with bridges over software, there is another major difference between software failures and bridge failures. When a bridge falls down, it is investigated and a report is written on the cause of the failure. This is not so in the computer industry where failures are covered up, ignored, or rationalized. As a result, we mostly keep making the same mistakes over and over again. The justification offered for this strange behavior is that in today's fast-moving business environment, a frozen design cannot accommodate the rapid changes in business practices.

Therefore a more flexible model must be used. Unfortunately, this has been used as a rationale for justifying far too many failed IT projects. A survey done in the UK by The Standish Group examining the results of 345 companies who had worked on a total of 8000 projects, what they discovered was shocking. Only 16 percent of projects were completed on time and within budget. Moreover, only 42% of all projects never delivered the intended functionality and nearly one-third were cancelled or substantially modified before completion. The survey reported that poor project management was the single largest contributing factor to these high failure rates.

So it makes total sense that while considering how to allocate finite financial resources inside their organizations, CFOs are typically quite concerned about whether a new project can be completed on time and within budget. Confronted with such low odds of success, both CFOs and CIOs should be cautious when considering which major IT projects to present for funding. Before promoting an IT initiative, the CFO needs to understand how proper project-management discipline will be used to optimize the chances for successful implementation.

Major IT projects are risky for any organization. It is the CIO's responsibility to minimize that risk by ensuring that projects are managed effectively. This begins with a process framework encompassing these 10.5 essential steps:

1. Make feasibility evaluations obligatory

Too often, haste to gain approval and begin a project may cause management to give minimal attention to this step, leading to unexpected problems in implementation, substantial cost, and time overruns, and the tarnishing of the implementing department's reputation. Requiring that a thorough project-feasibility assessment and informed-consent process be performed for all IT projects may slow the approval process, but it will help avert project failure later.

The feasibility analysis should include a list of preliminary architecture and design specifications and a project-management plan proposal which enumerates assumptions, required resources, constraints, and timelines. The informed-consent process should be conducted to obtain commitments from affected individuals and departments regarding staff and space availability, training schedules, approval processes, and competing priorities. The process also allows project designers to consider potential political and user-acceptance issues that could impede progress.

2. Designate a Project Sponsor who will declare clear project objectives

Reporting to large steering committees does not foster personal accountability among project participants. A clearly identified Executive Sponsor should be responsible for the success of the overall project implementation. The Sponsor should be charged with monitoring progress constantly and resolving issues that impede progress. This person should be supported by an executive group or committee that provides oversight and can serve as a forum for problem solving.

Before initiating an IT project, the proposed timeline, cost and scope should be clearly defined and accepted by all potential participants. Failure to verify that all stakeholders agree to these basic project parameters via well-defined deliverables can lead to confusion, wasted effort, needless duplication, and ultimately, project failure.

3. Appoint a full-time Project Manager

One individual should oversee the day-to-day management, execution, and delivery of the project. The Project Manager should track progress and report results to the Project Sponsor. The appropriate candidate for this position should have broad experience with similar projects and should utilize well-understood and familiar processes. A common mistake is to make a top performer in another area the Project Manager as a reward for good service. But without a PM experienced in IT implementation, a major IT initiative is far more likely to fail.

4. Give the Project Team real authority

A Project Team should be formed as soon as the Project Sponsor is authorized to proceed. Although Team membership will vary according to the specific project, the Team should include interdisciplinary senior staff with sufficient analytical, technical, and project-related expertise to guide the project to completion.

Team members also should be capable of accessing the enterprise resources needed to ensure the project conforms to enterprise architecture from the applications, infrastructure, and technology perspectives. This Team should have sufficient authority to control the activities and resources necessary to complete the deliverables within the set time frame.

Initial authority should be granted by the CEO/CIO upon project approval. However, the team should be informed that achieving the required "situational" authority to make the project a success will also largely depend upon their ability to build organization-wide acceptance. This happens naturally by meeting commitments, recognizing and rewarding people,

working effectively with vendors, and developing trust with department stakeholders.

5. Create a Detailed Project Plan

A comprehensive Project Plan should be developed as a guide to all major activities such as project deliverables, rollout timing, roles of team members, key risks, interdependencies, and approval processes. The document should incorporate all formal written agreements with external suppliers, internal suppliers, resource owners, and end users regarding their roles in the project.

Special attention needs to be given to those tasks requiring 40 hours or more to complete, especially if they involve many participants. Complex goals can be simplified by separating them into clearly-defined segments and assigning each one to a smaller group for completion within a designated time frame.

The plan should include contractual commitments from all vendors or suppliers whose performance is required to complete the project on time and within scope. Regular monitoring of vendor compliance with such commitments should be included in the Plan.

As part of the Project Plan, consider developing a communication program to promote organization-wide acceptance of the project goals via multiple channels such as newsletters, emails, distribution lists, and department meetings.

Early, clear, and consistent communication with stakeholders is critical to managing end-user expectations.

6. Secure committed staff resources

Based on the formal project plan, the Project Manager should obtain formal, written commitments from department managers to allocate time for their staff to work on the project. Similar commitments regarding time and specific deliverables should be obtained from all assigned staff. These commitments should then be sanctioned by executive

leadership, giving the Project Manager the authority required. Managers will need to plan ahead to free up the designated staff and resources necessary for the project while continuing to meet their daily operational requirements.

7. Establish performance measures and report progress daily

To assess project performance, a specific set of performance indicators should be identified. Useful measures that should be continuously monitored are achievement of milestones by target dates and accomplishment of tasks in accordance with defined expectations. Other performance measures should focus particularly on high-risk areas, such as end-user acceptance, satisfaction of the project sponsor, and whether changes and issues are being resolved expeditiously.

Performance should be tracked at the task level by those directly involved in performing them. Team Leads should present summaries to the Project Manager who prepares an overview for the Project Sponsor and Steering Committee. The Project Manager should be fearlessly honest in assessing and reporting performance and overall progress to the Project Sponsor. Discrepancies between expectations and actual performance should be discussed so that contingency plans can be made. This will openly reinforce both personal and team accountability.

8. Take corrective action sooner rather than later

Resolve any performance variances quickly and decisively. When project performance deviates substantially from the plan, the factor causing the problem should be quickly identified and eliminated or corrected. If it cannot be fully eliminated, steps should be taken to mitigate the factor's negative effects by reassigning team members to provide additional support in areas where it is needed. If the problem is insurmountable, changes to the project budget, schedule, and/or deliverables must be immediately negotiated with the Project Sponsor.

9. Implement formal change-control mechanisms

Effective project management depends on diligent reaction to inevitable changes. Failure to document changes can easily lead to confusion and throwaway work. All changes should be documented and incorporated into the Project Plan so everyone knows when and why a change was made. Such documentation should include the date the change was made and its effect on the approved plan. Major changes that raise project costs, substantially delay completion, or redefine major deliverables should require written approval by the Steering Committee.

10. Proactively manage risk

IT projects typically involve a number of significant risks and controversial issues that can prevent the team from moving ahead. All team members should be trained to recognize and monitor risks. These issues often tend to be political in nature, reflecting some organizational constituents' resistance to change or unwillingness to accept some of the facts of the project.

Remember that managing organization change is a critical element of any project. Consistent and pro-active communication among project participants, stakeholders, and end users is required to mitigate against such internal risks. If serious roadblocks are encountered, the Project Manager should have formal escalation processes to the Project Sponsor and Steering Committee.

10.5 Celebrate success

The project should have high visibility throughout its duration, and each milestone should be celebrated and announced organization wide. Publicly acknowledging team wins and demonstrating project momentum are effective ways to foster team coherence and the shared values that are intrinsic to high performance.

In Conclusion

It is clear to state that major IT projects are a risky undertaking for any organization. It is the both the CFO's and CIO's responsibility to minimize that risk by ensuring that such projects are managed effectively. This begins with implementation of all 10.5 Essential Steps of Successful IT Projects..