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The “Expert Series” is a collection of articles, papers and writings by PM Solutions’ associates and other industry experts that provides insight into the practice and value of project management.

Project Failures: Making News, Driving Change

Seventy-four percent of projects are unsuccessful: Wow! What an opportunity for change!

by Jeannette Cabanis-Brewin

Every time you open a magazine, log on to a website, or receive a promotional mailer, if it’s about project management, you are sure to see one set of statistics cited: the Standish Group’s CHAOS Report. These grim figures on the percentage of IT projects that fail or are cancelled has become a kind of battle flag for those who are trying to improve project processes. Even though these statistics are specific to IT projects, with IT increasingly moving out of the back office and into more mission-critical business processes like customer relationship management, ecommerce and supply chain management, the line between IT and other types of projects is blurring.

Other research sources also paint a dicey picture of project success. A survey of project managers conducted last year by Robbins-Gioia Inc. found that 90% of project managers often underestimate project size and complexity. Nearly half (44%) have cost overruns of 10% to 40%, and only 16% consistently meet scheduled due dates.

In construction—widely held to be the industry most mature in its use of project management—one cannot ignore the loudly publicized failure of the Big Dig project this year, which featured then-presidential candidate Sen. John McCain dressing down the project manager in front of the Senate Committee on Commerce, Science and Transportation. Officially known as the Central Artery/Third Harbor Tunnel, the project to sink Interstate 93 beneath downtown Boston was originally expected to cost \$2.6 billion, but a federal estimate in February put the actual price tag at \$13.6 billion—a cost overrun of more than 500% by one of the world’s premier capital project companies, Bechtel/Parsons Brinckerhof.

And in the consulting field, the customer struck back last year at companies that fail to carry out complex systems implementation projects successfully. Such industry luminaries as Deloitte Consulting, PeopleSoft, Andersen Consulting and SAP were sued by companies furious that ERP and HR system implementations had dragged on for years, run millions over budget, saddled customers with incompetent consultants and created a culture of dependency such that the consulting engagement could never come to an end. Project failure, as Standish Group chairman Jim Johnson notes, “is everyone’s problem.”

MAKING LEMONADE.

Yet there is good news in those bad statistics. In 1999, Johnson reported that project failure rates are falling. Examining the resolution of 23,000 software projects in companies of all sizes, in many industries, since 1994, his research shows that project success rates are up, while cost and time overruns are down. In 1994, only 16% of application development projects met the criteria for success—on time, on budget, and with all the features originally specified. By 1998, 26% were successful.

Large companies have made the most dramatic improvement. In 1994 the chance of a Fortune 500 company’s project coming in on time and on budget was 9%; its average cost, \$2.3 million. In 1998, that same project’s chances of success had risen to 24%, while the average project cost fell to \$1.2 million.

The cost of failed projects also fell, from \$81 billion in 1995 to an estimated \$75 billion in 1998. Cost overruns diminished from \$59 billion in 1995 to an estimated \$22 billion in 1998.

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Looking at success and failure from another angle, when the Standish Group compared the value of successful projects with the waste of challenged and failed ones, they found that companies' waste-to-value ratios improved substantially. In 1996, CHAOS research revealed 50% waste in IT projects. By 1998 that figure had dropped to 37%.

Johnson believes three factors explain these encouraging results: 1) a trend toward smaller projects which are more successful because they are less complex; 2) better project management; and 3) greater use of standard infrastructures.

Nevertheless, challenged and failed projects remain in the majority. But we are learning more about them every year.

WHY PROJECTS FAIL

Project failure, like the skeleton in the family closet, was simply not discussed—until 1996, when the Standish Group's work woke us up to the cost, size, and scope of the problem. Uncomfortable as this wake-up call might have been, it was a very positive step. Already we have learned many things about why projects fail. For example:

- Project managers who lack enterprise-wide multiproject planning, control, and tracking tools often find it impossible to comprehend the system as a whole.
- Project managers often underestimate project complexity and ignore changing requirements.
- Technology isn't the silver bullet. In fact, it is neither the problem nor the solution. But thinking it is can be a problem.
- The more expensive a project becomes, the more likely it is to fail. Large projects are far more vulnerable to problems than small ones.
- Troubled projects have traditionally been allowed to drag along forever, pursuing the elusive recapture of "sunk" money. A "shoot the messenger" mentality has reigned among top management, discouraging project personnel from alerting their superiors to projects at risk. Ranges of acceptable project variances against key baselines are not established during project initiation or planning; thus a kill or recover decision is not made early enough.
- Poor project management/managers. The old paradigm of promoting the best technical personnel to project manager level didn't work, since technical ability is a poor indicator of project management ability. Most of the reasons IT projects fail are management-related rather than technical. Many enterprises have no processes in place to ensure that project managers are appropriately trained and evaluated.
- Cost controls matter. In 1998 the retail industry had the highest rate of project success (59%)—three times that of government projects (18%). Why? Because the low-margin retail industry—unlike government—cannot tolerate waste.
- There is a high correlation between lack of clear project sponsorship and failure. Executive support for/understanding of projects is lacking in many organizations.
- Accurate project resource tracking as imperative to successful project management, but many organizations are hampered by awkward or antiquated time-tracking processes.

WHERE WE CAN GO FROM HERE

From these lessons learned, companies have begun to develop best practice standards. Here are just a few notable ideas:

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- A project should be owned by a sponsor in the business unit (or units) that it most affects. Middle managers should take responsibility for simple projects. Senior executives and directors should own projects that have a high degree of business or technical complexity or criticality. Without a designated owner, a project should not proceed beyond the concept stage. An effective project sponsor keeps the focus on the “why” of the project, ensuring that appropriate business and technical resources are in place. As project champion, he or she overcomes resistance to change, takes responsibility for delivering the key business benefits and controls project scope.
- Enterprises that hold post-implementation reviews, harvest best practices and lessons learned, and identify reuse opportunities are laying the necessary groundwork for future successes.
- A project office shines as the repository for best practices in planning, estimating, risk assessment, scope containment, skills tracking, time and project reporting, maintaining and supporting methods and standards, identifying reuse opportunities, and supporting the project manager.
- Sound project plans are realistic, up to date, and frequently reviewed; reviews focus not just on what has been done, but look forward to identify risks and opportunities.
- Project metrics and milestones are defined, measured and reported.
- Experienced sponsors and project managers develop and maintain a “go/no go” cancellation strategy. They don’t hesitate to kill a project that becomes a liability—without indulging in blame and punishment.
- Monitoring critical dates is imperative, and enterprise time-tracking software—usually Web-based for ease of use—has become a necessity for larger projects, multi-project environments and dispersed project teams.
- The project manager may come from either the business or IT, but must be competent and experienced. Benefits of having a good project manager include reduced project expense, higher morale, and quicker time to market. The skills most CIOs cite as desirable in a project manager are: technology and business knowledge, negotiation, good communications (including writing ability), organization, diplomacy and time management. Understanding the business is more important than understanding technology. They must be able to define requirements, estimate resources and schedule their delivery, budget and manage costs, motivate teams, resolve conflicts, negotiate external resources, manage contracts, assess and reduce risks, and adhere to a standard methodology and quality processes.
- Best-in-class enterprises have a process of due diligence to turn ideas into projects, using a standard checklist, addressing such issues as sponsorship, project plan, roles and responsibilities and finance. Based on this checklist, a project is either given the go-ahead, further researched, or rejected.
- Projects should be carried out in a standard, published way, with a project method that sets planning and control standards, review points, the nature and frequency of project management meetings and change control procedures. Project methods can be short and high level, but they must be clear and kept up to date. To preserve adaptability, project sponsors and managers review and fine-tune the method to match the scope and nature of individual projects.
- Successful companies ask for help from consultants, trainers, or outsourcing firms when necessary.
- Because the skills shortage means many working on project teams don’t know how to set milestones, approach problems analytically or create contingency plans, successful companies offer liberal training opportunities and reward project team members for self-improvement.

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- Less is more when it comes to tools: select the most user-friendly project management software package available.
- When people jump around, working on whatever task is the highest priority at the time, efficiency drops dramatically. Teams should be allowed to focus.
- Suppliers and other external stakeholders should be involved early in your project planning.
- Even if the project budget and time line are fixed by senior management, the project manager should continually validate or adjust the dates to avoid being stuck with unrealistic goals.
- Users should be involved from the planning phase through to closeout. You aren't finished until the users are satisfied with the project product.
- Managers who rely on exception reporting ("Don't bother me unless there's a problem") miss the opportunity to discuss things that work and to share knowledge and best practices with team members.
- To recover failing projects more readily, "intervention thresholds" need to be established upfront and project assessment instruments must be developed and available ahead of time. Developing survey instruments is time-consuming and further delays recovery. Recovery plans should be part of the overall project plan, and part of the methodology, so they don't have to be developed on a case-by-case basis.
- The problem—and the solution—is in people and processes, not in tools and techniques. Focus on the soft side, on human resource issues, on team dynamics, and on process definition.
- Shorter time frames encourage an iterative process of design, prototype, develop, test, and deploy: breaking a project down into manageable pieces. Implementation of major functional pieces should be planned in sixto- twelve-month increments: "no project should see two summers."

"FAILURE IS CRITICAL TO SUCCESS" is likely one of the smartest findings of the Standish Group. Using the lessons we learn from mistakes is the path to better performance in the future. Now if companies will develop an atmosphere of openness, where project managers are not afraid to highlight problems and management is facilitative rather than punitive in response, some of the best research information we have can be put into practice. At present our knowledge about how to prevent failure, unfortunately, is way ahead of the cultural changes necessary to make success the norm.

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