Project Management Best Practices: A Summary of Recent Research

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Presentation Background

• Most of the information in this presentation is based on reviewing the literature for examples for my latest books, IT Project Management, Fifth Edition and Introduction to Project Management, Second Edition
• If you like, you can access the slides from www.kathyschwalbe.com under My Bio

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Outline

- What are best practices?
- Best practices of individual project managers
- Best practices of organizations
- Best practices by knowledge area
- Questions/Comments

PMI’s Definition of Best Practice

- A best practice is “an optimal way recognized by industry to achieve a stated goal or objective” (PMI, Organizational Project Management Maturity Model (OPM3) Knowledge Foundation (2003), p. 13)
- Question: Does that mean there is only one “optimum way” and that it works all the time in that industry?

Webster’s Definition of Best Practice

- “A practice which is most appropriate under the circumstances, esp. as considered acceptable or regulated in business; a technique or methodology that, through experience and research, has reliably led to a desired or optimum result” (Webster’s New Millennium™ Dictionary of English, Preview Edition, retrieved July 18, 2007, from Dictionary.com)
Ultimate Business Library on Best Practice

- Rosabeth Moss Kanter describes the best practice secret: Stretching to learn from the best of the best in any sector can make a big vision more likely to succeed (Ultimate Business Library, Best Practice: Ideas and Insights from the World's Foremost Business Thinkers, Perseus Publishing (2003), p. 1.)
- Kanter also emphasizes the need to have measurable standards for best practices. An organization can measure performance against its own past, against peers, and even better, against potential.

Sample Best Practices for Project Selection and Management

- Make sure your projects are driven by your strategy. Be able to demonstrate how each project you undertake fits your business strategy, and screen out unwanted projects as soon as possible.
- Engage your stakeholders. Be sure to engage stakeholders at all stages of a project, and encourage teamwork and commitment at all times. (Article by Robert Butrick in the Ultimate Business Library, Best Practice: Ideas and Insights from the World's Foremost Business Thinkers, Perseus Publishing (2003))

Best Practices of Individual Project Managers

- Andy Crowe, founder and CEO of Velociteach, wrote a book in 2006 called “Alpha Project Managers: What the Top 2% Know That Everyone Else Does Not”
- As the title suggests, an alpha project manager is defined as one who falls in the top two percent of project managers in terms of performance, as rated by their customers, senior managers, and team members.
Alpha Project Managers Study Background

- Crowe surveyed 860 project managers who had all been clients/students at Velociteach.
- Although this was not a scientific study, the aggregate results provide interesting information that can help define best practices for project managers.
- The general format of the survey questions was as follows: Mark the degree with which you agree with the following statement:
  - Strongly disagree (0%), Somewhat disagree (20%), Neutral (50%), Somewhat agree (75%), Strongly agree (100%)

How the 18 Alpha PMs Differed Most

- They enjoy their work more
- They believe they have more authority
- They believe they can have a personal impact on project success
- They think it is important for the project manager to be a hands-on manager and a domain expert

Alpha PMs Spend Almost Twice as Much Time Planning

- In fact, they spend more time in every process group than their counterparts except for execution, as follows:
  - Initiating: 2% vs. 1%
  - Planning: 21% vs. 11%
  - Executing: 69% vs. 82%
  - Controlling: 5% vs. 4%
  - Closing: 3% vs. 2%
Alpha PMs are More Efficient and Effective Communicators

• When asked to rank responsiveness, the alphas’ stakeholders’ average response was 88% while the non-alpha average was only 49%
• Alpha project managers send fewer e-mails per day and spend less time in meetings than the non-alphas
• They know how to prioritize work and focus on what is most important.

Communications Best Practices of Alpha PMs

- They talk to stakeholders very early in the project and tailor communication to meet their needs
- They create a communication schedule and stick to it
- They communicate their messages quickly in a clear and concise manner
- They create an open communication channel and talk with stakeholders regularly about the topic of communication itself
- They know that on many projects, communication is the only deliverable stakeholders will receive until the product or service is completed

Best Practices of Organizations

• Dragan Milosevic (Portland State University)
• William Ibbs (UC Berkeley)
• PriceWaterhouseCoopers
• The Standish Group CHAOS studies
“What the Winners Do”*

• Companies that excel in project delivery capability:
  - Build an integrated project management toolbox (use standard/advanced PM tools, lots of templates)
  - Grow competent project leaders, emphasizing business and soft skills (ex. Air Force, Boeing, IBM)
  - Develop streamlined, consistent project delivery processes
  - Install a sound but comprehensive set of project performance metrics


“The Value of Project Management” Study

• Companies with more mature project management practices have better project performance. They deliver projects on time and on budget more often
• Project management maturity is strongly correlated with more predictable project schedule and cost performance. More mature companies have a schedule performance index (SPI) variation of 0.08 and a cost performance index (CPI) variation of 0.11. Less mature companies have indexes of 0.16 for SPI and CPI. For a $10 million project, this translates into a $1.6 million cost variation
• High project management maturity results in lower direct costs of project management. Companies with a high maturity level spend 6-7 percent of total project costs on project management. Companies with low maturity spend about 11 percent

PriceWaterhouseCoopers Study*

- Surveyed 200 companies from 30 different countries about their project management maturity and found that
  - Over half of all projects fail
  - Only 2.5% of corporations consistently meet their targets for scope, time, and cost goals for all types of projects
- The survey's main objective, however, was to investigate whether a higher maturity level would provide higher project performance


More PWC Study Results

- A higher maturity level for an organization enhances overall project performance, not in just one project, but in the overall portfolio of projects.
- Most organizations are not satisfied with their current maturity level. The total average for survey participants was 2.5 on a 5.0 scale
- Project failures are often a consequence of organizational aspects over which project managers have little influence
- Organizational structure has a big impact on overall project performance. The higher the alignment between structure and business requirements, the higher the overall project performance.

More PWC Study Results

- Staff development and professional certification enhance overall project performance. However, more than 60% of the companies surveyed do not regularly offer a development program to their project managers
- A systematic approach to change management is fundamental for superior project performance
- Staffing projects with a majority of internal resources as opposed to external resources is a better guarantee of success. The highest performance was achieved by using 25% external resources and 75% internal
- The extent to which project management software is used is correlated to maturity levels. The lower the maturity level, the more difficulties the organization will have in implementing software
### CHAOS Studies*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1994 Data</th>
<th>2002 Data</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful projects</td>
<td>16%</td>
<td>34%</td>
<td>Doubled</td>
</tr>
<tr>
<td>Failed projects</td>
<td>31%</td>
<td>15%</td>
<td>Halved</td>
</tr>
<tr>
<td>Money wasted on challenged and</td>
<td>$140 B out</td>
<td>$55 B out</td>
<td>More than</td>
</tr>
<tr>
<td>failed projects</td>
<td>of $250 B</td>
<td>of $255 B</td>
<td>halved</td>
</tr>
</tbody>
</table>

2006 data: 35 % successful, 19% failed, $53 B wasted**

*PM Network, July 2003, p. 16.

### Reasons for Improvements

- "The reasons for the increase in successful projects vary. First, the average cost of a project has been more than cut in half. Better tools have been created to monitor and control progress and better skilled project managers with better management processes are being used. The fact that there are processes is significant in itself."*
- Ex. MD selling PM meth., Augsburg IT, publishing process


### Quick Group Activity

- Before I review some examples of best practices by knowledge area...
- I’ll assign each part of the audience a different knowledge area
- Discuss best practices you use related to that knowledge area
- Report some back
Sample Best Practices by Knowledge Area

• Integration
• Scope
• Time
• Cost
• Quality
• Human resource
• Communications
• Risk
• Procurement management

Integration Management

• A recent study found this comparison of companies that performed best and worst in NPD*

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Best</th>
<th>Worst</th>
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<tbody>
<tr>
<td>Align projects with business strategy</td>
<td>65.5%</td>
<td>46%</td>
</tr>
<tr>
<td>Align resource breakdown with strategy</td>
<td>65.5%</td>
<td>8%</td>
</tr>
<tr>
<td>Get customer input in defining new products</td>
<td>69%</td>
<td>15%</td>
</tr>
<tr>
<td>Have an identifiable project manager</td>
<td>80%</td>
<td>50%</td>
</tr>
</tbody>
</table>


Scope Management

• Keep the scope realistic. Don’t make projects so large that they can’t be completed. Break large projects down into a series of smaller ones
• Involve users in project scope management. Assign key users to the project team and give them ownership of requirements definition and scope verification (ex. NWA having agents do interface code)
• Use off-the-shelf hardware and software whenever possible. Business needs, not technology trends, must take priority
• Follow good project management processes, especially in defining and controlling project scope
Scope Management (cont'd)

- IBM's Rational Unified Process (RUP) principles characterize best practices as follows:
  - Adapt the process
  - Balance competing stakeholder priorities
  - Collaborate across teams
  - Demonstrate value iteratively
  - Elevate the level of abstraction
  - Focus continuously on quality*


Scope Management (cont'd)

- NWA found a great way to prevent scope creep on a large software project
  - They included a function in the system where users could suggest changes to the system
  - They allocated 3 full-time programmers to only handle change requests
  - Managers had to decide which of the 11,000 change requests to implement
  - Although only 38% of the changes were done, everyone was satisfied*


Time Management

- You can reduce schedule risk through project milestones and these guidelines:
  - Define milestones early in the project and include them in the Gantt chart to provide a visual guide
  - Keep milestones small and frequent
  - Make each milestone binary, meaning it is either complete or incomplete
  - Carefully monitor the critical path

Time Management (cont’d)

- Monitor the project’s progress and revise the plan.
- Assign the right people to the right tasks. Put the best developers on the critical tasks (Always? ex. Wild Animal Kingdom).
- Start with high-risk tasks (Always?)
- “Don’t boil the ocean.” In other words, if the entire project consists of high-risk tasks, then the project itself is high-risk and bound for failure.


Cost Management

- Just two percent of organizations were very effective at measuring performance of the overall portfolio.
  - Only 22 percent of effectively or very effectively organizations use a project plan for managing projects.
  - Only 17 percent have either rigorous or very rigorous processes for project plans, which include developing a baseline and estimating schedule, cost, and business impact.
  - Only 20 percent agreed their organizations monitor portfolio progress and coordinate across inter-dependent projects.
  - The majority agreed their organization has no business impact assessment for completed projects, and success is measured only at the project level, based on performance against schedule and budget. *


Cost Management (cont’d)

- According to Brandon Stewart, director of IT Management and Governance products at Borland:
  - “The most successful organizations are taking a holistic view of focusing, managing, and measuring their IT efforts with an integrated combination of best practice processes, training and technology…Portfolio management enables IT to make fact-based investment decisions in unison with business stakeholders, thus ensuring alignment, improving visibility, and shifting the burden of investment decisions from the CIO to all stakeholders.”

Quality Management

• As discussed earlier, increasing PM maturity helps improve project delivery
• OPM3 provides the following example to illustrate a best practice, capability, outcome, and key performance indicator:
  - Best practice: Establish internal project management communities
  - Capability: Facilitate project management activities
  - Outcome: Local initiatives, meaning the organization develops pockets of consensus around areas of special interest
  - Key performance indicator: Community addresses local issues
• Another ex. 3M and Six Sigma training/projects

Human Resource Management

• Best practices can also be applied to include the best places for people to work
  - Fortune Magazine lists the “100 Best Companies to Work For” in the United States every year, with Google taking the honors in 2007
  - Working Mothers Magazine lists the best companies in the U.S. for women based on benefits for working families (ex. Carlson Cos.)
  - The Timesonline provides the Sunday Times list of the 100 Best Companies to Work For, a key benchmark against which UK companies can judge their performance as employers

Communications Management

• Best practices for managing innovation in business include making investments in communications:
  - When asked what technologies they plan to implement or leverage in the coming year,
    - 54 percent of respondents reported handheld PCs/PDAs as the most important hardware
    - 56 percent cited Web services as the most important software, and
    - 53 percent cited wireless technologies as the most important Internet technology

Risk Management
• Risk management should encompass both strategic risks and upside opportunities, which Hilson refers to as integrated risk management. Benefits of this approach include:
  - Bridging the strategy and tactics gap to ensure that project delivery is tied to organizational needs and vision
  - Focusing projects on the benefits they exist to support, rather than producing a set of deliverables
  - Providing useful information to decision-makers at all levels when the environment is uncertain.
  - Allowing an appropriate level of risk to be taken intelligently with full awareness of the degree of uncertainty and its potential effects on objectives.


Procurement Management
• Accenture survey suggestions for outsourcing:
  - Build in broad business outcomes early and often
  - Hire a partner, not just a provider
  - It’s more than a contract, it’s a business relationship
  - Leverage gain-sharing

Procurement Management (cont’d)
• Use active governance
• Assign a dedicated executive
• Focus relentlessly on primary objectives: Be clear about objectives—cost, process improvement, and the ability to focus on the core business are the most common among outsourcing veterans.

Don't Forget This Best Practice: Take Time to Enjoy Life!

Questions/Comments?