Elements of Project Portfolio Management

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Projects, Projects Everywhere!

Everybody's project is this year's priority. Everyone is a project manager. Every manager thinks her initiatives should receive major portions of the limited funding that is available these days. Every team wants Information Technology resources and assumes they will be there, no questions asked. Projects, projects everywhere; and NO ONE knows what is really going on!

It has been recognized that organizations that conduct Project Portfolio Management gain a competitive edge in their market by doing the right projects at the right times for the right reasons. How does an organization identify, understand, prioritize and move forward to implement the right mix from the myriad of projects proposed from all different departments? Let's talk about this.

But let's talk about this with the assumption that our organization (say ABC Financial Services) has a firm grasp on the company's core goals and objectives for the near future. Perhaps formal strategic planning has already taken place; regardless of how it got there, let's say our company can align project proposals with corporate strategy. The conversation about an organization that can't do that is for another day.

How does an organization identify projects? It may seem obvious, but a company should define what a project is and what parameters will be examined to make informed decisions about its eventual disposition. Parameters should include: cost, scope, schedule, resource requirements and complexity. For instance, ABC Financial Services defines a formal project as one that:

- will cost over $100,000;
- involves a core competency (for example, a dashboard for online clients);
- requires a project manager, subject matter experts, technology staff and affects more than 15 end users; and
- is of high complexity (e.g., will introduce new technology into the company).

Every manager who determines that his department's initiatives fit these criteria is required to submit a high level project proposition for each initiative to the Portfolio Management Committee (PMC) well before next year's project planning process. The PMC is comprised of senior staff who understand the global, integrated needs and objectives of the organization and who can make decisions on where to expend scarce resources with a big picture view.

How does the Committee (representing the company, of course) understand the projects proposed? A preliminary screening of the initial propositions may eliminate a percentage of them based on the project criteria above or the fact that they may immediately be deemed outside of the company's goals. For each proposal passing the first gate, a robust business case must now be developed. The business case is a key document; it describes the reasons and the justification for the project's undertaking based on its estimated costs, the risks involved and the expected future business benefits and value. Managers may find that writing a good business case is a project in and of itself and may require more work than was anticipated. That's a good thing; a department must be willing to expend energy and resources to thoughtfully and completely flesh out and present their case.

How does the Committee prioritize the projects? Objective criteria should have been developed to guide the PMC in its prioritization of the proposals that make it through the second gate (business case). Subjectivity has no place in determining where a company should spend its valuable (and often scarce) resources. Criteria such as value to the company (Return on Investment, larger market share, etc.), alignment with strategy, risks of not doing the project and other factors could be assigned weights much the same as a matrix developed for the evaluation of Request for Proposal (RFP) responses is done in Procurement Management. Those projects that fall below a certain score might be tabled for another year or abandoned altogether.

Once the Project Portfolio is developed, the organization has a good understanding of the money and human capital to be spent in the coming fiscal year and perhaps beyond. What happens next may assist the organization in gaining that competitive edge…or not. What does happen next?

Developing the Compelling Business Case

Part of any Portfolio Management process is the decision rendered from the Portfolio Management Committee (PMC) as to which projects will be initiated with the promise of adequate resources to ensure success. The PMC will determine the portfolio upon careful consideration of the business case.

Regardless of who is technically responsible for writing the business case, you and I both know the functional manager will request that you, the potential project manager for the project, write it. No doubt it will undergo significant scrutiny and even crazy-making wordsmithing; but you can outdo yourself if you follow a few basic rules.

Even if the Portfolio Management Committee has a template for the business case, ensure that you consider and communicate:

- **Alignment with Corporate Vision, Mission and Core Competencies**
  If you don't know or don't fully understand the organization's strategies and values, find a mentor who can impart that knowledge with a sense of both the big picture and some of the details that will resonate with the executives who staff the Portfolio Management Committee. This is not "BS"; rather, it is (or should be) an objective look at the proposed project and gaining a thorough understanding how it will contribute to the company's bottom-line.

- **The Project's Relative Position Within the Mix of Proposed Projects**
  Understand the business drivers behind your proposal and behind the other proposals competing for corporate resources. State the objectives of the project succinctly, no double-talk, in a manner that facilitates decision-making.

- **Viable Alternatives and One Recommendation**
  There are at least two alternatives – 1) do what you (and the functional manager) want to do, the way you want to do it; and 2) do nothing. Don't stop there; be objective. Inquire. Explore. Poll your solutions team and the concerned business area for ideas; you'll be pleasantly surprised at what surfaces. When you decide which alternatives and which recommendation to put forward, explain why certain routes were not chosen. Have costs and benefits of the throw-aways in your back pocket for discussion purposes.

- **Costs and Benefits**
  This is a tough assignment so early in the project life cycle. First, investigate costs from former projects; but use the information wisely. Second, resist the temptation to sweeten the benefits unrealistically just because you really, really want to do this project. Use intangible benefit statements (e.g., improve morale) sparingly unless there is a uniquely compelling reason to include returns that cannot be measured. Mostly, be conservative and honest in all your assessments.

- **Risks**
  It's not difficult to brainstorm and document all the uncertainties that can plague the project. But don't forget the OTHER risks – the opportunities. Going through this exercise can also assist in identifying costs and contingencies necessary for the project. Identify and categorize all the negative and positive risks associated with the project and present them in a clear, concise manner.

A well-written business case alone will not guarantee that the project will pass the gates set up by the Committee. However, a business case that misses the mark WILL guarantee that it doesn't.

Developing Tools for the First Gate

Previously we have presented the overall Project Portfolio Management Process and offered some guidance on writing a solid business case. Business case development is under the purview of the functional manager who is requesting the project be considered for part or all of the organization's scarce resources. However, the Portfolio Management Committee (PMC) has its work cut out for it, too.

Perhaps the PMC had developed the template for the anticipated business cases. Let's assume they have, since they know (or should know) what they need to see from the functional managers in order to make decisions on what projects will go forward. Now, as the deadline for next fiscal year's proposals nears, the members of the PMC must understand and agree on how these new or improved business cases will be analyzed for the initial, high-level evaluation of their size, complexity and alignment with the organization's corporate strategy. During this process, projects that do not meet these established criteria do not make the first gate and are not analyzed any further.

A thoughtful, proactive approach to developing the criteria, the decision matrix if you will, may include the following:

1. **Brainstorm evaluation criteria**
   Brainstorm any and all evaluation criteria appropriate to the situation. If possible, involve customers in this process. General categories such as feasibility and effectiveness are difficult to evaluate, so, when possible, drill down into the categories to define criteria that may be more easily scored. It should also be noted here that annual review of the matrix is key to staying current with corporate strategy, market conditions and other factors. Possible criteria will include:

   - cost (order of magnitude costs may be available at this stage)
   - time to accomplish
   - financial payback
   - resources required (for example, money and people)
   - customer pain caused by the problem
   - urgency of problem
   - effect on other systems
   - management interest or support

2. **Refine the list**
   After all ideas are on the table, refine the list (there should not be more than 6-8 key criteria considered or the process becomes too unwieldy) and ensure that everyone has a clear and common understanding of what the criteria mean. Also ensure that the criteria are written so that a high score for each criterion represents a favorable result (more likely to pass the gate) and a low score represents an unfavorable result. Criteria such as cost, resource use and difficulty can cause confusion: e.g., **low** cost may be **highly** desirable. This can be avoided by rewording the criteria to state "low cost" instead of "cost"; "ease" instead of "difficulty."

3. **Assign weights to criterion**
   Assign a relative weight to each criterion in cases where some decision criteria are more important than others. In a tight budget year, low cost may carry more weight than customer pain. Other years, alignment with strategic direction regardless of costs may be more heavily weighted. The assignment can be done by discussion and consensus or each member can assign weights. Then the numbers for each criterion are added for a composite team weighting. This step often produces a lively debate!

4. **Determine scoring range and representation**
   Determine the scoring range and ensure that all PMC members have a common understanding of what the scores will represent. One of several ways to do this includes establishing a rating scale for each criterion. Some options are:

   - 1, 3, 5 (1 = low, 3 = medium, 5 = high)
   - 1, 2, 3, 4, 5 (1 = little to 5 = great)
   - 1, 4, 9 (1 = low, 4 = moderate, 9 = high)

Enhance the committee's agreement and understanding by coming to consensus on definition and fully documenting the scale. For instance:

Financial Payback:

Low Score (1 point):
Net profit potential generated in the first 3 years after implementation is expected to be less than $5M per year.

Medium Score (3 points):
Net profit potential generated in the first 3 years after implementation is expected to be between $5M and $15M per year.

High Score (5 points):
Net profit potential generated in the first 3 years after implementation is expected to be greater than $15M per year.

Once the decision matrix is developed and institutionalized (it may require review and approval from other stakeholders), it will be used in the Project Portfolio Management Process to create a prioritized list of open business cases. The prioritization provides a blueprint of which projects will be the ones to receive further attention from both the functional business units and the PMC.

Reporting and Review

Finally! The Portfolio Management Committee (PMC) has established the project portfolio for the fiscal year and perhaps beyond. It's time to dissolve the group until next year's caucus and the flurry of activity around evaluation and selection.

BUT WAIT!

The PMC must never lose sight of their ultimate responsibility. As the attention and efforts of the organization shift from planning to implementation, the work begins of constantly reassessing original business case validity, analyzing the project's progress against baselines and forecasting the achievement of projected benefits.

What types of metrics might be employed to avoid status and progress reports that answer questions such as, "How far along is the project?" or, "How is the project tracking against budget?"

These questions are vague, and so the equally vague answers of, "We're 50 percent complete," or, "We're on budget," might be expected but are wholly unsatisfactory. What does 50 percent represent? Is it a best guess or a sound estimate based on meticulously measured project parameters? In project portfolio management, only facts and figures that have been carefully recorded, reported and analyzed are the solid foundation on which to base strategic decisions.

The PMC should establish a scorecard that describes what it means to be a project that is contributing to the strategic plan of the organization and therefore should remain in the portfolio with all the benefits that implies. The scorecard should include:

- Project management metrics covering estimated effort, project duration and cost;
- Technical metrics such as defect rates, rework targets and other product characteristics;
- Stakeholder satisfaction with the process and results to date.

To be more specific, the PMC could mandate that each project measure and report on a regular basis the:

- **Total capacity**: how many potential hours the staff is available to work
- **Utilization rate**: the percentage of time that people are actually allocated to categories of work
- **Available hours**: a forward-looking metric that shows how many hours people are unassigned in the future
- **Budgeted cost versus actual**: should be tracked for each project in the portfolio and then rolled up at the portfolio level
- **Project schedule versus actual**: If projects are tending to run over their deadlines, it may mean that other projects will not be able to start because the resources are still tied up on other projects.
- **Rework and defects**: Projects experiencing rework and defects are likely to be over budget and delayed. In addition, stakeholder satisfaction may be suffering.
- **Stakeholder satisfaction**: This is probably the toughest parameter to measure accurately; however, all projects should be reporting some kind of stakeholder satisfaction metrics.

Of course, it is not enough to require regular reporting and dictate what the reports will detail. The PMC has the responsibility to then analyze the data and make thoughtful decisions to continuously optimize the performance of the entire portfolio and foster the greatest benefit to the organization.

For example, let’s examine two of the most critical metrics the PMC will consider: cost and time.

Although some projects may not exceed their budget, they may still miss their required deadline or they will take longer than estimated. The PMC must constantly weigh the “success” of being under budget with the fact that resources are tied up on this project rather than being able to start on other projects. This is a concern for both current and subsequently scheduled projects because they may be delayed not by the lack of funds but by not having the required resources available.

For a project budget overrun that is relatively small, the PMC would most likely approve the increase. However, if the cost overrun is substantial, it may require that the entire business case be re-validated for that project. A project that makes good business sense at a certain investment level may not make as much business sense at a higher cost level. Of course, money that is already spent must be regarded as "sunk cost," and does not figure in future planning. The real question is whether the additional funding is better spent on the current investment or on another high priority project.

Sound portfolio management requires that the PMC review the data and make the tough decisions. They must support the projects that are making positive contributions to the organization, and they must eliminate efforts that no longer make business sense. It is always a dramatic step to cancel a project that is in progress, but if the business case no longer supports the investment, canceling the project may be the right course of action for the organization.

The Double Dimension

Before we begin, let me start out with two definitions that may seem obvious…but usually aren't.

Program: a program is comprised of projects that are related in some fashion and bring benefits to the organization by being run together rather than one at a time (or not at all).

Portfolio: the organization's complete roster of projects regardless of type, complexity, etc.

A program is administered by a program manager, and it is only one portion of the portfolio. The portfolio, with all its combined benefits and liabilities to the organization, is the responsibility of executive management. Executives must examine and balance the portfolio to achieve the maximum benefit while minimizing risk and liabilities. The goal is to fund deserving efforts, produce the highest payback from each investment and protect the organization from utilizing strategic resources for "pet projects".

As with everything that executive management considers, the strategic plan of the organization should offer a strong guiding principle to this exercise. In addition to alignment with overall corporate strategy, organizational resource usage and allocation must be factored into decisions about maintenance of the portfolio.

One dimension of balance may be created by stocking the portfolio with three different types of projects:

1. **Ongoing support:** often the projects that no one wants. They are not fun to work on, not anything new. However, they are vital to support the business and should comprise a good share, perhaps up to a third, of the portfolio.

2. **Advance strategy:** used to maintain and increase market competitiveness, these projects will make up a majority of the portfolio.

3. **Revolutionary:** now, *these* are the fun projects everyone wants to do! They are the riskiest type of project for any business but should make up some portion of the portfolio or stagnation may set in.

Of course, the organization must define – and agree on the definition – of these project types. Once equipped with solid criteria, it would be relatively easy to categorize each project under consideration.

The second dimension of balancing the portfolio is the mix of projects within each type. No doubt every organization has many potential responsibilities and opportunities and only so many resources to apply to them. Fortunately there are many selection models to choose from, ranging from the most simple to extraordinarily complex.

Which is best? Often, organizations spend a lot of money trying to decide which projects to do; any model used must be realistic, robust but flexible, easy to use and cost effective.

Some models to be considered include:

- **Checklist**: best used if time is of the essence, this model employs a few criteria against which to measure the projects. For example, if the corporate priority is time to market, perhaps that criterion and cost (or cost and risk, etc.) would be on the list.

- **Weighted criteria:** although it is sometimes difficult to assign weights or scores to criteria, this method is used quite extensively. Projects are assigned scores made up of rank times weight and the highest scores get to stay in or join the Portfolio.

- **Profile model:** using two criteria, for example risk and return. Perceived risks (very subjective) and calculated return are plotted and projects can be analyzed according to where they fall in the graph.

- **Financial:** including discounted cash flow analysis, net present value and internal rate of return, these models are all based on the time value of money and are very popular models for project selection.

A wide variety of selection methods may be appropriate for specific companies and project circumstances. Some projects require financial evidence of their viability. Others may demonstrate no more than an acceptable potential when compared to other options. In other words, any of the previously discussed selection methods may be appropriate under certain situations.

Regardless of the approach that a company selects, we can be sure of one thing: Making good project choices is a crucial step in ensuring good project management downstream.

About the Author

Vicki Wrona, PMP, is the founder and President of Forward Momentum, LLC. She has over 20 years of leadership and project management experience, more than 15 years public speaking, and more than 15 years training and development experience. She has trained thousands of people, has mentored individuals and organizations and has authored multiple white papers and blogs. She was selected to serve on PMI's committee to write and review the PMBOK® Guide 4th edition and co-developed the program that won PMI's Professional Development Product of the Year award in 2007. She has served on the Board of Directors for the Texas Soaring Association. Her passion is equipping individuals and organizations with practical knowledge and tools so that results – and bottom-line impact – are consistently achieved.

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To date, we have trained over 40,000 people, including over 6,000 on the Project Management Professional (PMP®) certification exam preparation. We co-developed the innovative blended learning PMP® exam preparation program that earned PMI's Professional Development Product of the Year award in 2007. We are a PM Training Alliance® (PMTA) Certified Training Provider (CTP), and Project Management Institute® (PMI) Global Registered Education Provider (REP).

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