Project Portfolio Management – Book Summary (Harvey A. Levine)

Introduction – Project Portfolio Management

- Project portfolio management (PPM) is a set of business practices that brings the world of projects into harmony with the strategies, resources, and executive oversight of the enterprise.
- PPM provides the structure and processes for project portfolio governance.
- The primary and unique aspect of PPM is what it does to formalize and assist in the selection of projects.
- Project portfolio management is the management of the project portfolio so as to maximize the contribution of projects to the overall welfare and success of the enterprise.

The What and Why of PPM

- A lot of effort may go into doing projects right – even if they are not the right projects.
- Two distinct and costly problems:
  - Projects that should not have been selected to be in the pipeline
  - Projects that remain in the pipeline even after they no longer serve the organization's best interests.
- The result is that many projects are not delivering on their promises or are not supporting the goals of the enterprise.

The Impact of PPM

- Fortunately, as widespread and as costly as these problems are, the solution is simple and inexpensive.
- Moving to a PPM culture will require a top-level commitment and a mature and cooperative environment for the project and governance teams.
- Success will require the development and implementation of new practices. While the new process flow will be comprehensive, it will actually streamline the selecting and managing of projects.
- Perhaps the biggest change will be in communication and decision making. And these changes will be for the better.

The Components of PPM

- PPM is about having the right information so you can make the right decisions to select the right projects.
- It's about communicating and connecting the business strategy to the project selection process.
- By evaluating benefits, risks, alignment, and other business and project factors, we can prioritize candidate projects and select the higher-ranking ones to get first crack at the organization's limited economic and human resources.

Why Do We Need Project Portfolio Management?

- If you are a senior manager, such as a chief executive officer, chief operations officer, chief financial officer, chief information officer, or a strategic planner, you are surely concerned about picking the right projects and getting the most out of your resources. The answers are in PPM.
- If you are an executive charged with the responsibility for information technology, application development, or new product development, this book was written for you.
- Most executives are no longer just interested in project measurements of scope, time, cost and quality.
- Instead, they talk about profitability, return on investment, delivery of benefits, and taking advantage of windows of opportunity.
- What mix of potential projects will provide the best utilization of human and cash resources to maximize long-range growth and return on investment for the firm?
- How do the projects support strategic initiatives?
- Similar issues apply to the nonprofit and government operations where optimizing the use of limited funds and resources and support of missions and strategies is vital.
- PPM can be effectively applied to both the public and private sectors.

The Fundamentals of a Project Portfolio Management Process

- Executives expect projects to be aligned with strategies, make effective use of limited resources, and deliver certain benefits.
- The processes associated with PPM bring the operations and projects functions together to fulfill these expectations.
- The PMO will review its current project management tool set for support of the new PPM functions. If the existing tool set has not added such support, the PMO will evaluate additional software capabilities to be integrated with the project management tools.

Where Do We Start?

- Getting started in implementing a PPM process is a bit like the chicken-and-egg question.
- Do we first attack the existing portfolio and then implement an improved project selection process? Or do we accept the current portfolio and go right after the selection of new projects? There is no prescribed order. However, reports from the field indicate that many firms have first reviewed their current portfolio, eliminating a significant portion of their project load (due to redundancy, nonalignment with strategies, poor value, or inefficient use of resources), thus making room to add more valuable projects.
- In reality, the two phases are inseparable. The processes form a loop: build the project portfolio; manage the project portfolio; adjust the project pipeline, if indicated, based on project performance and reevaluation; consider proposed projects to fill availabilities due to completed, delayed or terminated projects; update the project portfolio; and so on.

Selecting Projects for the Pipeline

- The objective is to create the mix of projects most likely to support the achievement of the organization's goals, aligned with the preferred strategies, and within the organization's resources (people and funding constraints).

Evaluating Candidate Projects

- We'll assume that the objective of the PPM process is to prioritize work that brings the most value to the firm. The definition of *value* will certainly differ in accordance with the firm's focus, strategies, and types of projects.
- Regardless of these differences, a project portfolio management process should address the following;
  - A ranking of value and benefits
  - An appraisal of risk (in achieving these benefits)
  - An inventory of resources availability and allocation
  - An idea of an optimum or acceptable size of the project pipeline
- The criteria for each of these factors will have to be customized by the firm that is implementing the PPM process. This definition will be driven by the firm's strategic focus.

Ranking Value and Benefits

- The ranking practice should use a balanced scorecard approach, with each of the factors listed and weighted as each factor is rated; an aggregate score for each project is obtained.
- The rating of each factor can be prompted by a series of questions, with the answers noted in a narrative format and then converted to a numerical score based on the level of the answer against a guideline.

Risk

- The value/benefits ranking may be modified by risk: the risk that the perceived benefits might not be realized.
- A project that is vulnerable to critical delays might be a lower-ranked candidate the one that is certain to be delivered in time to produce the expected benefit.

Resources

- Resources cost money. They have an impact on cash flow.
- One of the key objectives of a managed portfolio is balance. This is a well-respected strategy in investment portfolios and should also be an objective in project portfolios..

Size of the Pipeline

- The opportunities (or demand) for projects usually exceed the capacity to execute them all.
- There is significant feedback from successful firms that tends to show that doing fewer projects actually improves the bottom line.

Tools for Project Portfolio Management

- PPM extends traditional project management practices and tools to situations beyond the planning and control of approved projects.
- Effective integration of new and existing practices and tools is essential to PPM success.

General Types of Projects – for Balancing Purposes

- There are three general types of projects: maintenance or utility projects, growth or enhancement projects and transformation projects.
- A typical portfolio consists of a balance of these types of projects. The nature of the business will dictate the proper makeup and balance of its portfolio. Balance does not mean that the portfolios are equal.
- Maintenance or utility projects generally support ongoing products and services. When we prioritize these, they might not register as high on the benefits-value scale as some other type of projects.
- Growth or enhancement projects are likely to fall into medium-to-high benefit and the high-alignment segments of the ranking criteria. By design, these should be the projects that support strategic initiatives and represent increasing value.
- A third bucket will often be established for transformation projects. These are the opportunities to move the firm to a new level or to introduce new products or services that will dominate the marketplace. These opportunities are extremely sensitive to the market timing and success and must be treated with some skepticism.
- Transformation projects require special handling. When we compute a benefits number for these projects, we are assuming a particular return based on a specific market position.

PPM Techniques and Issues

Portfolio Planning

- A couple of highly structured methodologies have emerged to help take some of the guesswork out of project evaluation and selection.
- One of these techniques, the Analytic Hierarchy Process (AHP), is a mathematical model to assist in the decision-making process. It has enjoyed wide acceptance in several application areas and is now being successfully applied in PPM. The deployment of AHP is much simpler than it sounds. Behind the mathematical model is a basic and practical decision-making process.
- Another useful model, based on the work of Nobel Prize winner Harry Markowitz, is the Efficient Frontier. We will show how Markowitz's work in modern portfolio theory is applied to optimize the project portfolio.

Linking Strategy and Project Portfolio Management

- When you have each of the following items, consider that you have a set of strategies:
  - A position or mission comprising of a set of products, services, customers markets, geographies, channels, technologies (ends)
  - A set of quantifiable goals (ends)
  - Overarching approaches by which you will achieve the ends (means)
  - Specific plans to apply those means and resources to achieve the ends (project portfolio management)
- Assuming that leadership has identified the mission, goals, and strategies, the critical next level of detail is identification of specific projects that will carry out the strategies.
- These projects become candidates for inclusion in the organizations project portfolio.

Making Strategy Explicit

- In every organization, a strategy does exist whether or not one is articulated. Decisions made been executives are based on some criteria or strategy; to find it, follow the money. Where is the organization spending its money? What programs are funded? What skills are being bought?
- Once you have analyzed such actions and identified trends, reverse-engineer them to tease out common underlying criteria or a strategy that drove them. After recording your theories, hold dialogues with decision makers to validate and refine the theories.
- Gain concurrence from leadership to use these as strategic criteria in the project candidate evaluation process.

PPM as a Surrogate for Strategic Planning

- The definition of strategy looks amazingly like all of the elements necessary in project portfolio management.
- If your organization does not do strategic planning today, instituting project portfolio management will enable the discipline and process that defines the strategic process.
- If your organization does do strategy work today, integrating project portfolio management with it is a natural extension to strengthen it and increase rate of strategy realization.

Using the Analytic Hierarchy Process to Improve Enterprise PPM

- The analytic hierarchy process (AHP) is a powerful and flexible methodology that improves project portfolio management (PPM) decisions in both commercial and government settings.
- Combined with advanced optimization techniques, the AHP can help a team ensure they are allocating their scarce resources to the best portfolio of projects possible.

See the complete chapter written by Jim Devlin in a separate .pdf document entitled "Using the AHP to Improve Enterprise PPM".

The Efficient Frontier Technique for Analyzing Project Portfolio Management

- Constrained by finite budgets, staff, and other resources, companies are continually faced with the issue of deciding where to invest money and effort to deliver the most value to the business.
- With millions of dollars in project investments at companies each year, it makes sense to treat these significant investment decisions in a manner similar to how a funds manger determines a portfolio of stocks.
- What does an optimized portfolio really mean? How optimized are your project portfolio investments? Most IT portfolios fail to employ even the most basic optimization techniques in favor of simpler methods.
- This approach draws on concepts from economics, particularly Harry Markowitz's Novel Prize – winning Efficient Frontier and Modern Portfolio theory. Although the Efficient Frontier uses a few advanced portfolio optimization programs, it should not be seen merely as a computing procedure but as an economist's way of thinking about investing in projects.

Move All Project Portfolios on to the Efficient Frontier

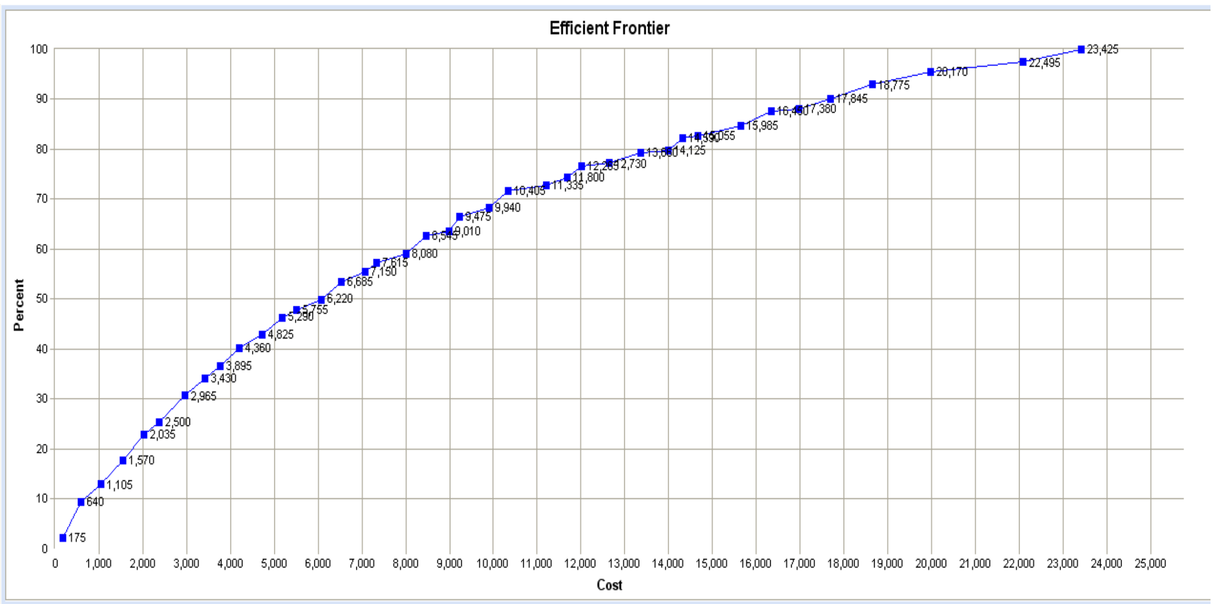
- When the ideas of portfolio management are expressed in economic and mathematical terms, they are easier to understand and verify.
- The Efficient Frontier is a fundamental scientific method that is extremely effective in visually summarizing the information required to understand all of the portfolio possibilities, the cost trade-offs, and the factors that affect the efficiency of the portfolio.
- Furthermore, this method allows stakeholders to organize, explore, search and select the optimum portfolio

The Efficient Frontiers answers three key portfolio management questions:

- What are the best possibilities of projects that an organization can implement given the available budget and organization capabilities?
- Are we getting the best from our potential portfolio of projects? If not, why are we not getting the most from our investment portfolios?
- Are we overinvesting?
- It is an applied economics method that shows how companies manage their scarce resources. Specifically it will help in understanding the following:
    - The concepts of scarcity and its consequences
    - The concept of value and cost and its graphical presentation
    - The concepts of and relationship between value, cost and current operating practices
    - Breaking the constraints and its influence on the Efficient Frontier

Applying the Efficient Frontier to Portfolio Selection

- The Efficient Frontier curve shows all of the best possible combination of project portfolios and the value than can be created with available capital resources in an unconstrained mode.
- In the example below, the cumulative business values are on the vertical axis and available budgets are on the horizontal axis. The vertical value measures the value of the opportunity based on the impact and alignment with business drivers.



- As we move from left to right, the quantity of cost increases while the value increases. This illustrates an important point: when a company is employing all available resources, it faces a trade-off. The only way it can have more value is by using capital.
- Any point above the Efficient Frontier is not possible. The company can select a portfolio of projects on or under the Efficient Frontier.
- Portfolios along the curve are said to be efficient because the company is getting the maximum value from the available budget.
- Points under the Efficient Frontier curve represent inefficient portfolios. Many reasons cause a portfolio to be under the curve, including forcing in too many low-value projects or a significant mismatch between supply and demand of skill competencies
- This brings us to an important lesson: any fact that moves the portfolio's position away from the Efficient Frontier should be challenged.
- Another important outcome from Efficient Frontier modeling is the opportunity cost. The Efficient Frontier shows the opportunity cost of investing an additional dollar versus the additional value received.
- When the company is discovering the most valuable projects of the investment – those with the highest value/cost ratios—the Efficient Frontier is quite steep.
- In contrast, when there are very few valuable projects left—those with the worst value-to-cost relations –the Efficient Frontier curve is quite flat.

From Overload to Productivity via Systematic Decision Making

- Overload has become a way of life as firms struggle to manage a barrage of projects in an attempt to meet increasing marketplace demands. The scale and number of projects underway have outstripped organizations' ability to manage them.
- Perhaps more so than at any time in business history, organizations find themselves dangerously overextended. They start multiple projects with limited resources, in flattened organizations, without common logic or language, and with no clear framework for establishing priorities.
- Leading business journals continue to tout projects as a way of life, but in many organizations, project management effectiveness is in a precarious state.
- Not only projects but also business performance is jeopardized when organizations take on more projects than they can handle.
- These organizations need a way to balance what they do with what they can do in a given timeframe.

A look beyond the symptoms reveals the root causes of the proliferation syndrome: n informal or inadequate process for initiating projects; unfocused or "moving –target" project priorities, and inconsistent and poorly executed project planning, resource allocation, and implementation.

The truth is that any organization's resources are limited. One way or the other, only certain projects will get done. The choice is whether this happens arbitrarily or deliberately.

The Cure: Project Complexity Reduction

A systematic method for evaluating the organization's project investments is critical. Six steps are common in project portfolio initiatives:

1. ***Analyze the overall project environment***. Before moving to remedy the situation, any organization needs to take a long, hard look at the status quo. Interviews and other assessment tools reveal the nature of the gap between the current approach to managing projects and systematic portfolio approach.
2. ***Develop project portfolio objectives***. The senior management team needs to undertake the definition of specific, strategically linked objectives for building the project portfolio. What exactly is our project portfolio expected to accomplish? What are our strategic and operational objectives, and what are their relative merits?
3. ***Analyze resource capacity***. It's not uncommon to find an organization that has identified fifty thousand hours of project time needed but only fifteen thousand hours of people time available to devote to project work. A reasonable assessment of the organization's available resources must go hand-in-hand with decision objectives.
4. ***Gather and organize data on current and anticipated projects***. Whatever the project management methods used in various parts of the organization (which may vary widely), project data needs to be collected and reported in a consistent format for evaluation. What are the major tasks of each project, and what specific resources are required for their completion?
5. ***Evaluate the project portfolio***. Based on the objectives developed and the project data collected, senior mangers evaluate each project for inclusion in the portfolio going forward. The critical decisions they are required to make, their strategic project choices, will not be easy. How do projects compare in their alignment with objectives?
6. ***Implement a complexity reduction system***. The final key is the installation of a simple and sustainable management system to control project proliferation permanently. How will new and existing projects continue to be measured against objectives with a consistent framework? What project management skills and common practices will support the organization's ability to monitor the watchdogs and master project managers?

The Seven Habits of Highly Effective IT Portfolio Management Implementation

- Portfolio management is on its way to becoming a mainstream practice. Three forces continue to drive the need for a sound methodology and proven tools for IT portfolio management:
  - ***Increased need for compliance and accountability***. With the Sarbanes-Oxley legislation, executives can no longer claim, "I was not aware". Portfolio management provides the rationale for large project investments and the transparency and accountability to know where investments are flowing in an organization.
  - ***Increased awareness of technology's role in meeting a company's business objectives***. It is clear that projects must be aligned with business strategy. This problem is fundamental since recent industry studies have shown that 40 percent of capital investments are wasted mainly due to lack of alignment with business strategy.
  - ***Changing budgets, which require thoughtful reallocation***. "The essence of reality is scarcity" as companies have been reminded in the recent economic downturn. Less budget, fewer resources, yet business must go on.
- Yet most organizations will adopt simplistic solutions based on input data and "nice charts" or will view portfolio management as a roll-up of projects into an umbrella group. It's not that easy.

We look at seven proven best practices that were consistently used in successful PPM rollouts.

1. Start at the top with senior management buy-in.
2. Don't overwhelm the organization with a big bang approach.
3. Develop a governance process.
4. Use proven PPM tools.
5. Develop a common currency to evaluate projects based on contribution to business objectives.
6. Optimize the portfolio against constraints to get the biggest bang for the buck!
7. Don't assume things will be okay. Monitor portfolio execution and benefits realization.

Balancing the Portfolio

- Another major facet of portfolio management is balancing or optimizing the portfolio; scoring elucidates high-priority projects, but balancing focuses on the optimal mix. Bear in mind that balancing portfolios involves just that: optimizing an entire portfolio, not just individual projects.
- Portfolio management is an iterative process. Once a portfolio is optimized, it must be continually monitored so that fit with objectives is maintained as businesses change.
- Organizations typically hold periodic portfolio review meetings to model options and make decisions about new and continuing projects. Ideally, these meetings work in coordination with project reviews and an organization's gating process.