

CHAPTER 5.3: DEVELOPING PROJECT MANAGEMENT CAPABILITY – BENCHMARKING, MATURITY, MODELING, GAP ANALYSES, ROI STUDIES

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INTRODUCTION

How good are your organization's Project Management (PM) practices? How well do your practices compare with those of your peers in the business world? Are you making the appropriate investments in new PM systems, processes, and practices? These are the questions that few firms can answer directly and accurately. Yet their answers can unlock the gate to superior business performance.

The first step in understanding an organization's PM effectiveness is to determine its Project Management Maturity (PMM). By having a grasp of where a company lies on the PMM spectrum, management can determine its PM strengths and weaknesses, which is enormous value in today's highly competitive, project-oriented marketplace.

Stated simply, a company's PMM is a measure of its current PM sophistication and capability. Knowledge about the most sophisticated PM tools does not necessarily mean that those complicated tools will be used on every project. Rather, appropriate knowledge means that the firm and its managers understand which PM tool is appropriate for the demands of the project. PMM helps gauge such management wisdom.

Once PMM is known, it can be used to both understand the company's current standing and to develop a roadmap for future improvements in PM processes and practices. Once on the path to such PM enlightenment, companies can craft their PM capabilities and strategy to enhance competitive advantage and wealth creation.

The purpose of this chapter is to describe how PMM benchmarking can help organizations develop that roadmap. We will do this by first highlighting the importance of PMM in today's competitive marketplace. Secondly, we will exhibit techniques for determining current levels of PMM and defining a course for PMM improvement. Lastly, we will demonstrate methods to enumerate the value of

PM improvement to ensure that investments in PM are reaping the desired returns.

THE IMPORTANCE OF PMM IN TODAY'S MARKETPLACE

Businesses are becoming increasingly projectized. Examples of current successful businesses that are organized around projects include Microsoft (operating and networking environments), Boeing (large commercial and defense aerospace ventures) and Amgen (biotechnology R&D). They are successful because they continually grow revenues and profits and have achieved remarkable stock market capitalization. The vast majority of their revenue and profit sources are from projects.

These firms share common characteristics such as devolved power, strong emphasis on intellectual property, powerful brand identification, as well as a premium on project-driven services and products. They are also very much bottom-line focused, managing themselves in a manner that creates increased shareholder value. These companies also share another trait: they are project-focused. As they evolve as organizations, their abilities to deliver projects that advance their corporate strategies also evolve.

As projects fast become the currency for market prowess, making PM a core capability of successful organizations is paramount. No longer are being on-time and on-budget the only benefits or goals of strong PM. Additional core benefits of a project-centric focus are sophisticated PM tools that improve upon organizational effectiveness, meeting quality standards, and fulfilling customer satisfaction (Al-Sedairy 1994; Boznak 1988; Bu-Bushait 1989; CII 1990; Deutsch 1991; Gross and Price 1990; Ziomek and Meneghin 1984).

But to be a true competence, PM success cannot be an occasional event. Performance that is good, on average, is not sufficient. Repeatability and relentless improvement must be the standard. Project performance that is, on average, good but erratic is not sufficient because one wayward project ripples through and affects the company's portfolio of projects. When management attention is diverted to the errant project, the loss of attention on all other projects can ripple through to other concurrent or subsequent projects, hurting them.

The first step in determining PMM and appropriate directions for future improvements to PM is to evaluate the benefits of PM in quantified terms. PM cost, schedule and cost performance, PMM and the financial return on PM investments (what we refer to as PM/ROISM) are all important quantifiable metrics in evaluating the benefits of PM. Research shows that companies with high levels of PMM can leverage a range of quantified benefits (Ibbs and Reginato 2002):

- **Companies with more mature PM practices have better project performance.** For example, companies with more mature practices deliver projects on time and on budget whereas less mature companies may miss their schedule targets by 40% and their cost targets by 20%.
- **PMM is strongly correlated with more predictable PM schedule and cost performance.** The project portfolios of more mature companies, for instance, have lower standard deviations for Schedule Performance (0.08) and Cost Performance (0.11) than companies with lower PMM scores (corresponding values of 0.16 for both Schedule and Cost).
- **Good PM companies have lower direct project costs than poor PM companies.** Highly mature companies have PM costs in the 6-7% range, while their counterparts average 11% (and in some cases reach 20%). Note this is just the direct cost spent on PM. Organizations with low PMM risk other undesirable events such as increased indirect costs, late project deliveries, missed market opportunities and dissatisfied customers.

Each of these points will be discussed in greater detail later in this chapter. The key point being made is that increased levels of PMM correspond to better project performance and, in turn, can be a key driver for corporate success.

PMM – CONCEPTS AND QUANTIFICATION

So how does an organization measure PMM? The following section demonstrates techniques for determining current levels of PMM, as well as measuring it numerically so that it can be quantifiably valued.

Definition

PMM is the sophistication level of an organization's current PM practices and process (Kwak and Ibbs 2002). PM techniques serve businesses in planning, controlling, and integrating time and resource-intensive endeavors. Until recently, there was little quantifiable data, suitable methodologies, or well-defined processes that impartially measure PM practices. PMM models were developed to fill that void.

In addition to measuring the internal level of PMM, corporate executives needed a method to validate the investments they were making in PM. PMM can be used in conjunction with valuation techniques such as financial return on investment because it is a quantifiable value. That is, what profit return will a company realize for every \$1 it invests in some new PM system, process, or procedure? Also, as many PMM models become standardized (which is a goal of the Project Management Institute's OPM3 initiative), PMM becomes a

yardstick from which companies can compare their internal measures of PMM externally with other peer organizations.

Models

As PMM has been thrust to the forefront of building PM competence, several models for measuring maturity have evolved. One such model is the Berkeley Project Management Process Maturity Model. This model has been developed over a seven-year research period and has been successfully implemented in several industries, nonprofits and government agencies (Ibbs and Reginato 2001) (Kwak and Ibbs 2002).

The five-step Berkeley PM Process Maturity Model is used to establish an organization's current PMM level. This model demonstrates sequential steps that map an organization's incremental improvement of its PM processes. It is schematically illustrated in Figure 1.

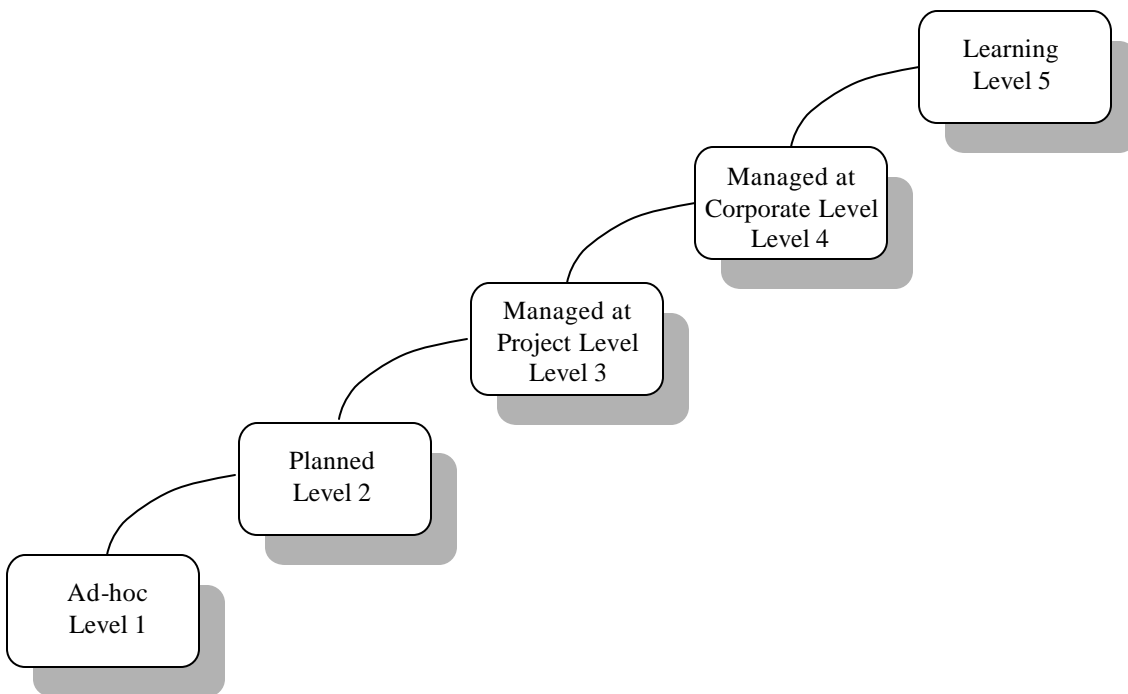


Figure 1: Berkeley PM Process Maturity Model

The model progresses from functionally driven organizational practices to project-driven organizations that incorporate continuous PM learning. An organization's position within the model can be used to determine its position relative to the other companies in the same industry class or otherwise that have been assessed.

Level 1: Ad-Hoc

At the Ad-Hoc Stage, there are no formal corporate procedures or plans to execute the project. The project activities are poorly defined and cost estimates are inferior. PM-related data collection and analyses are not conducted in a systematic manner. Processes are unpredictable and poorly controlled. There are no formal steps or guidelines to ensure continuity of PM processes and practices. As a result, utilization of PM tools and techniques is inconsistent and applied irregularly, if at all, even though the individual project manager may be very competent (Ibbs and Kwak 2000).

Level 2: Planned

At the Planned Level, informal and incomplete processes are used to plan, but not control a project. Some PM problems are identified, but generally not documented or corrected in a systematic manner. PM-related data collection and analysis are informally conducted but not documented. PM processes are partially recognized and used by project managers. Nevertheless, planning and management of projects depends largely on individuals.

An organization at Level 2 is more team oriented than at Level 1. The project team understands the project's basic commitments. This organization possesses strength in doing similar and repeatable work. However, when the organization is presented with new or unfamiliar projects, it likely experiences chaos in managing and controlling the project. Level 2 PM processes are efficient for individual project planning, but not for controlling the project, let alone any portfolio of projects (Ibbs and Kwak 1997).

Level 3: Managed at the Project Level

At Level 3 PM exhibits systematic planning and control systems that are implemented for individual projects. PM processes become more robust and demonstrate both systematic planning and control characteristics. The PM team typically works together in an informal setting. For the purposes of project control, most of the challenges regarding PM are identified and informally documented for each project. Various types of analyzed trend data are shared by the project team to help it work together as an integrated unit throughout the duration of the project. This type of organization works hard to integrate cross-functional teams to form a project team.

Level 4: Managed at the Corporate Level

For projects managed at Level 4, management processes are formal, while information and processes are documented informally. The Level 4 organization is fully integrated: it can plan, manage, and control multiple projects efficiently

across an organization's project portfolio. A PM process model is probably well defined, with project requirement systems that are in place but not necessarily regularly used. Project related data and records are formally and systematically collected, reviewed and distributed to the appropriate parties, but are not formally organized. Also, data are collected and analyzed to anticipate and prevent adverse productivity and quality impacts or other trends detrimental to project success. This allows an organization to establish a foundation for fact-based decision-making.

In addition to effectively conducting project planning and control for multiple projects, the organization exhibits a strong sense of teamwork within each project and across projects. PM training is available when needed and is provided to the entire organization, according to the respective role of project team members.

Level 5: Learning

The key characteristic of companies that operate at the Learning Stage is that they continuously improve their PM processes and practices. Each project team member spends considerable effort to maintain and sustain the project-driven environment. Training is formally available when needed, presenting lessons learned and other techniques to improve PM on an ongoing basis. Project team members are typically together throughout the entire project duration and their individual roles are defined based by their strengths and experience. Problems associated with applying PM are fully understood and addressed on an ongoing basis to ensure project success. PM data are collected automatically to benchmark PM strengths and identify the weakest process elements. These data are then rigorously analyzed and evaluated to select and improve the management processes. Innovative ideas are also vigorously pursued, tested, and organized to improve processes.

Formal comprehensive requirement systems exist and are used regularly. A PM process model is formally defined, distributed and discussed by all of the team members using previous project experience as a guideline. Additionally, a PM consulting group is probably created and chartered and its existence is communicated throughout the organization.

Each level within the Berkeley PM Process Maturity Model includes an assessment of PM processes and practices based upon six PM processes and nine knowledge areas as shown in Figure 2. By assessing each organization along these boundaries, PM strengths and weaknesses are determined. This allows companies to prudently invest in areas to improve upon their weaknesses.

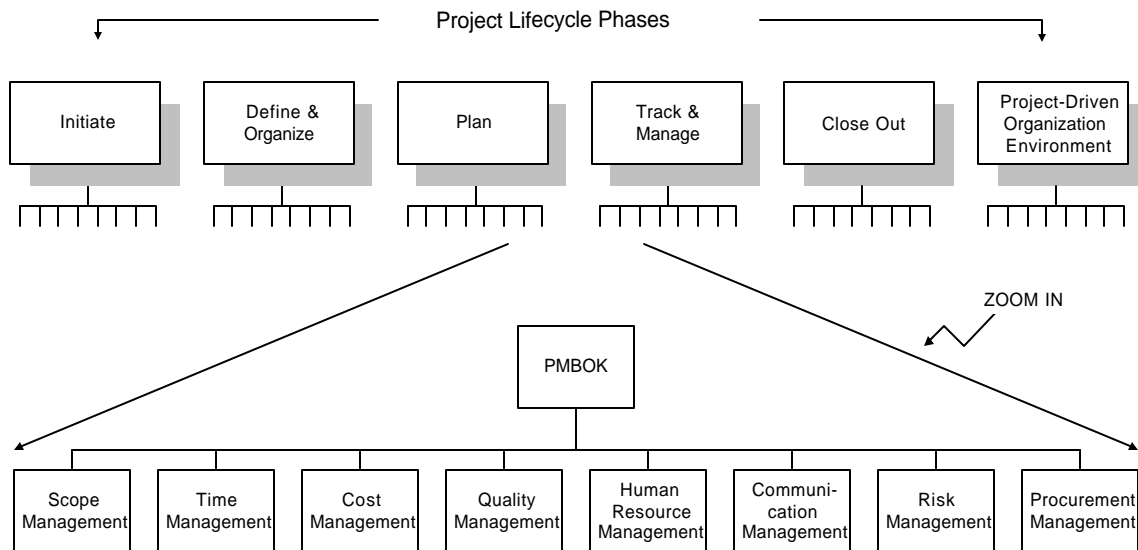


Figure 2: Benchmarked PM Phases and Knowledge Areas

Ideally, an organization evolves smoothly and thoroughly from a less PM-sophisticated organization to a "learning" project-centered organization. However in practice it is rare that when a company moves to maturity Level N+1, it has implemented all the characteristics of Level N. Rather, at Level N+1 an organization has the capability to choose the proper and relevant PM practices or processes that are suitable for a given project.

To illustrate, suppose that the scheduling techniques available to a company range from simple bar charts at the low end to complex simulation for resource optimization at the high end. An organization that has a high level of PMM does not always have to employ the most sophisticated techniques available to them, which in this case would be the simulation. Rather, they enjoy the ability to apply the most appropriate techniques based upon the complexity of the project. This allows for the construction of a broad ranging PM toolkit as maturity increases.

In addition to the Berkeley Model are other maturity models developed by consultants and practitioners. Among them is the Center for Business Practices Model, Kerzner's Project Management Maturity Model, ESI International's Project Framework and SEI's Capability Maturity Model Integration. PMI is striving to develop some commonality and consistency among these models through its OPM3 endeavors but the outcome is not certain at this time. For a good summary of maturity models, the authors encourage review of Foti's (2002) article.

Measuring PMM

Measuring PMM involves quantifying the internal level of maturity and then comparing it externally to peer organizations. Two interconnected methods – benchmarking and gap analysis – will be discussed in the following sections.

Benchmarking

Benchmarking is a process that allows organizations to compare different aspects of current practices against best practices. The basic premise is to improve and learn tools and techniques from other organizations. The purpose of benchmarking is to analyze the internal operation; understand the competition and industry leaders; incorporate best practices; and gain a superior foothold in competitive markets (Camp 1995).

To assess PMM between different organizations or functional groups within an organization, a rigorous and comprehensive benchmarking methodology must be developed. The methodology adopted by the Berkeley Model involves a detailed, three-part questionnaire for data collection. Part I involves collecting general data regarding each organization, including the size of the organization, personnel structures and how much it spends on PM per year.

Part II consists of 162 multiple-choice questions. Its intent is to measure the maturity of the organization's standard PM processes. Examples of some such questions are displayed in Figure 3.

65. Critical path identified	
No critical path calculation done. Each sub-project identifies critical tasks independently and sets work priorities	1
Critical path based on committed milestone dates. No CPM calculation performed, or CPM used on individual sub-projects	2
Key critical tasks identified through non-quantifiable means, and used to drive the critical path calculation.....	3
Critical path calculated through integrated schedule, but only key milestone dates communicated back to sub-projects.....	4
All critical tasks identified and indicated in each individual sub-project schedule. Critical path determined through integrated schedule.....	5
106. Quality management (QA/QC) system is utilized	
No quality management system	1
Informal quality management system, not used	2
Informal quality management system, hardly used.....	3
Formal quality management system, occasionally used	4
Formal quality management system, intensely used	5
128. Project deliverables list reviewed and cross checked against actual deliveries	
No project deliverables list available	1
Deliverables list available, but not reviewed	2
Some informal review of original, approved deliverables list	3
Formal review of approved deliverables list, but with only informal comparison to actual deliverables.....	4
Formal review of approved deliverables list with point-by-point comparison to actual deliverables.....	5

Figure 3: Sample Benchmarking Questions

To calculate the overall PMM, the average score for all 162 questions and their standard deviation are computed for each organization. All questions are weighted equally, so underlying the assessment is the assumption that all questions are equal indicators to an organization's PMM. Because of industrial and organizational competition, situations arise where some questions are more relevant to an organization than others. However, neglecting such factors allows for achievement of nonbiased circumstances to specific variables.

Gap Analysis

Worked hand-in-hand with benchmarking is gap analysis. Gap analyses are characterized by the comparison of an organization's current state to its desired state. The current state is defined by current practices and the desired state is represented by industry best practices (Camp 1995). The gap between current and best practices serves as the basis for preferred improvement.

Maturity's Role in Other Fields

For those readers who are in the software industry, much of the above may sound familiar. The Software Engineering Institute (SEI) at Carnegie Mellon University has several models that focus on maturity in the software industry. Research conducted by SEI is widely regarded, and many large organizations require that their software vendors meet certain levels of software capability maturity, usually stipulating that vendors provide continuous improvement over the life of the service contract. This continuous improvement stipulation is not unlike the gains that can be made by systematically improving PMM as shown by the Berkeley PM Process Maturity Model.

PMM'S RELATIONSHIP TO BUSINESS RESULTS

Determining organizational PMM should not be an exercise in measurement for measurement's sake. Detailed goals should be outlined, with most, if not all, of those goals tied to business objectives. The following is a discussion of how improvements to PMM can improve overall business processes.

Measurable Maturity Benefits

As previously discussed, the assessment process begins by determining the overall maturity for a group of peer organizations. This step is highlighted in Figure 4:

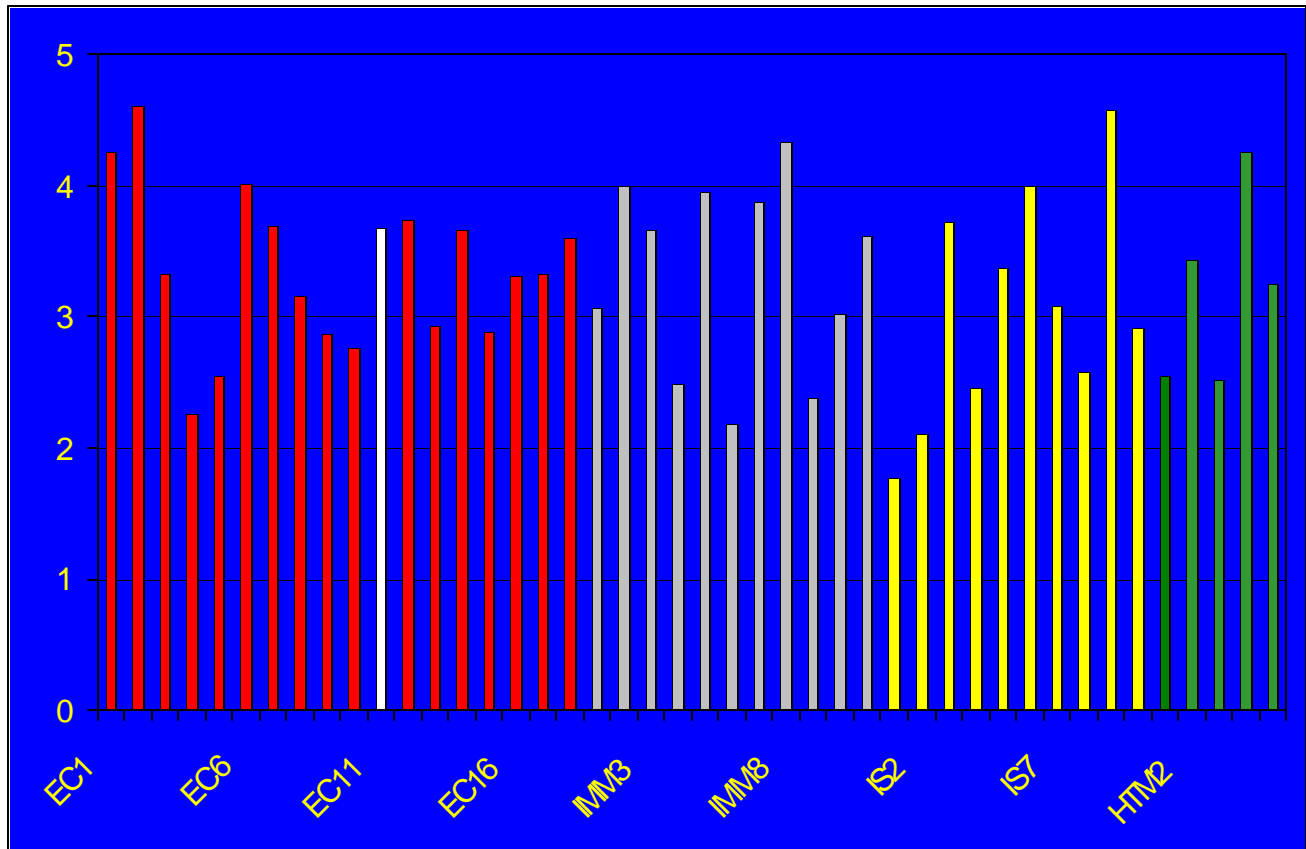


Figure 4: Overall Maturity for 44 Organizations

The data presented above was generated by research conducted at the University of California at Berkeley. The companies in red are engineering and construction companies (EC); companies in blue (IMM) are primarily involved in telecommunications and information movement and management; organizations represented by the yellow bars are information service (IS) organizations that deal primarily with information technology and software development; and the green bars are high technology manufacturing companies (HTM) that produce technology-intense hardware. The average overall PMM for all of the companies is approximately 3.30.

Knowing how an organization stacks up against others is important because the managers of that firm can then ascertain a relative projection of how PM is providing a competitive advantage or stands as a competitive barrier. However, to be most helpful the PMM must be assessed on a “subatomic” level. For an example, consider company EC11 in Figure 4, as represented by the white bar. Its overall PMM is about 3.70, which puts it in the better half of its peers in terms of PMM.

If the managers of EC11 wished to improve the company's PMM, where would they look? A gap analysis would point out specific areas in which EC11 could improve vastly with respect to its peers. For example, EC11 lags well behind its peers in terms of Initiating Projects, as shown by the white bar in Figure 5 below:

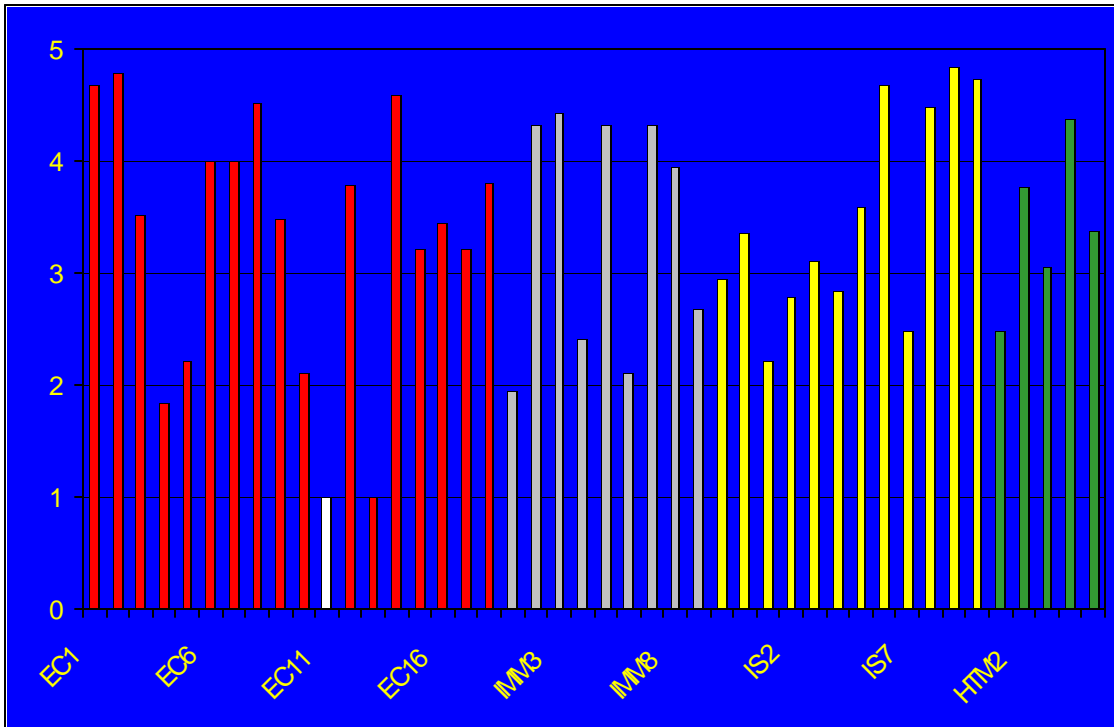


Figure 5: Drilling Down PMM to the Initiating Projects Level

The gap analysis illuminates that EC11, while ahead of most of its peers in terms of overall PMM, can improve substantially by improving the process by which it initiates projects. This analysis allows EC11 to target the most appropriate areas of improvement rather than a hit-or-miss approach that may not improve (or even decrease) overall maturity.

As obvious as this seems, few companies conduct such a diagnostic test on their PM processes and teams before undertaking major PM improvement efforts that they *think* will help their companies. In terms of an analogy, most ailing people would be skeptical of a physician who prescribes a certain treatment before running a full battery of tests. Yet those same rational people routinely spend enormous sums of money, time and effort on new PM software systems or PM training without first pinpointing where those improvement efforts would be most helpful.

This methodology can be extended to each of the PM phases and knowledge areas that are represented in Figure 2. Table 1 displays how a gap analysis can highlight *en masse* the areas where an organization leads or lags its peers.

Process Area	All Companies	Peers	EC11	EC11 - Peers
Scope	3.42	4.15	3.84	- 0.31
Time	3.37	3.86	3.85	- 0.01
Cost	3.47	4.28	4.26	- 0.02
Quality	3.00	3.15	3.93	0.78
Risk	2.97	3.35	3.97	0.62
Communication	3.53	3.81	4.10	0.29
Human Resources	3.11	3.44	3.88	0.44
Procurement	3.15	4.40	3.97	- 0.43
Integration	3.61	3.67	3.86	0.19
Initiate	3.35	4.27	1.00	- 3.27
Define/Organize	3.65	4.13	3.87	- 0.26
Plan	3.21	3.54	3.79	0.25
Track & Manage	3.32	3.65	4.40	0.75
Close Out	3.27	3.54	3.33	- 0.21
Project-Driven Organization	2.97	3.63	3.45	- 0.18
Overall	3.30	3.73	3.70	- 0.03

Table 1: Gap Analysis for EC11 and its Peers

In the EC11 - Peers column, positive numbers represent areas where EC11 surpasses its peers and negative figures show areas of needed improvement. To target areas of improvement, EC11 can simply rank the negative numbers in order of highest to lowest. The largest discrepancies between EC11 and its peers are the areas in which EC11 should focus.

As mentioned earlier, our initial benchmarking analysis treats each of the 162 questions as being equally important. At any stage of the analysis though, some questions can be given more importance if the individual company so wishes. Experience shows this must be done with careful forethought though; otherwise the managers of the subject company may obtain an inaccurate analysis. For instance, they may think that quality management issues are paramount for their business, and ask that such questions be superweighted whereas in point of fact their competitors are emphasizing some other aspect of PM.

Project Performance Improvement Benefits

Improving PMM will lead to improvements in PM processes and practices. However, the real goal of PM is not to improve processes and practices per se but to deliver projects more successfully. As discussed in the following section, there is a correlation between improved PMM and improved project performance.

Schedule and Cost Performance

What do companies get for their investments in PM? Our analysis of detailed assessments reveals that companies with higher PMM tend to deliver more of their projects on time and on budget. See Figures 7 and 8.

These figures contrast Schedule Performance Index (SPI) and Cost Performance Index (CPI) against PMM for companies that we have benchmarked over the past six years. SPI and CPI are defined as the ratios of total original authorized duration or budget versus total final project duration or cost, respectfully. That is:

$$\text{Cost Performance Index} = \text{CPI} = \frac{\text{Planned Budget}}{\text{Final Costs}}$$

$$\text{Schedule Performance Index} = \text{SPI} = \frac{\text{Planned Duration}}{\text{Final Duration}}$$

Figure 6: CPI and SPI Equations

The value to organizations is apparent. In terms of schedule, as PMM increases so does the ability to complete projects on time. An SPI ratio of 1.00 equates to finishing projects in exactly the time that was originally estimated; a number < 1.00 indicates late completion. The ability to accurately forecast the

time necessary to complete a project affords senior executives in the firm a powerful tool in meeting time-to-market windows.

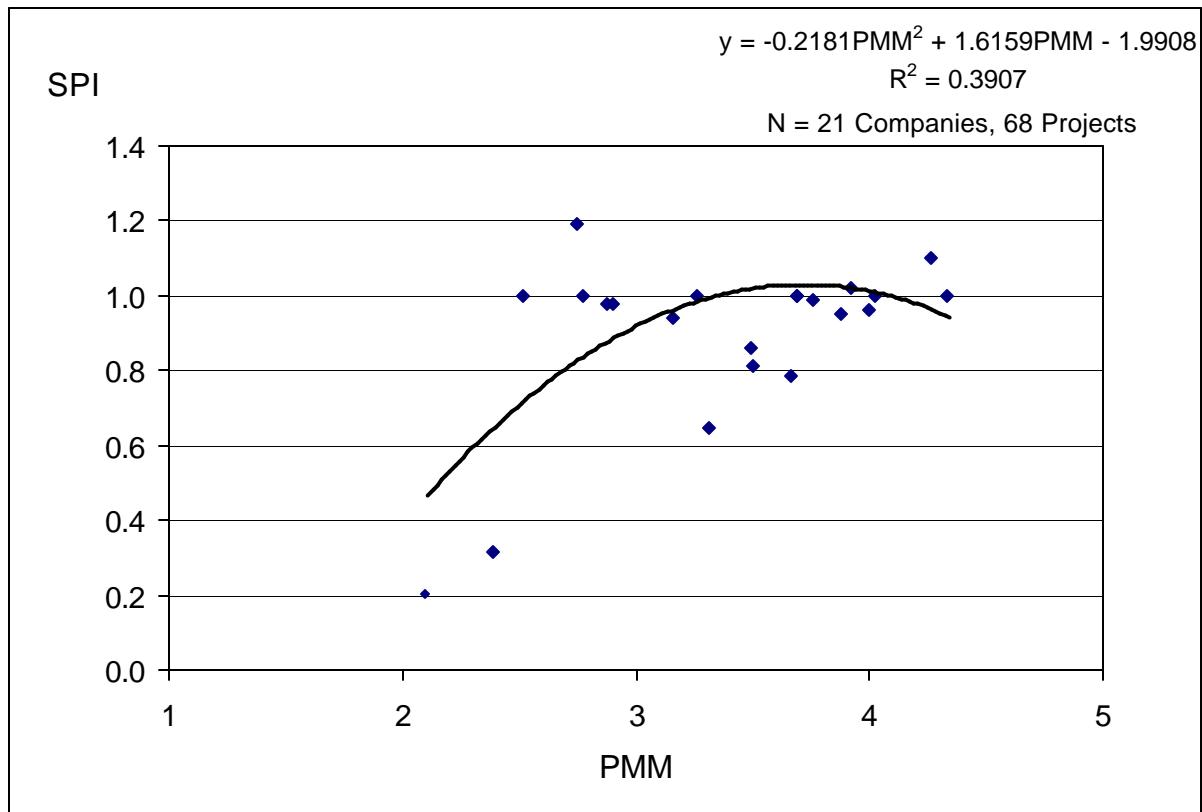


Figure 7: SPI vs. PMM

Like SPI, CPI increases with higher PMM levels. Also similar to SPI, a CPI value approaching 1.00 signifies accuracy in estimating and delivering projects

on budget. Increasing CPI is good because accurate cost forecasts allow companies to confidently and accurately allocate capital.

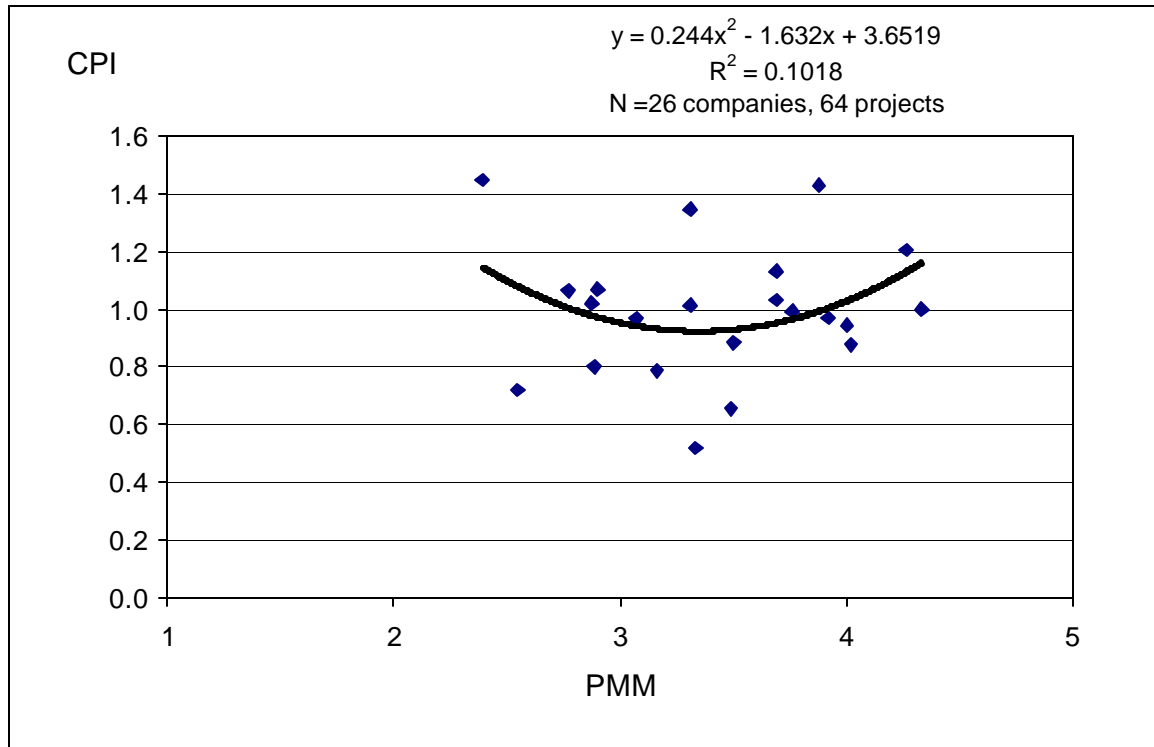


Figure 8: CPI vs. PMM

The R^2 value in these figures is called the correlation coefficient. A value = 1.00 would mean that the computed regression lines depicted in these figures are correlated perfectly with the actual data. Since the R^2 value for CPI is lower than that for SPI, we can say that cost estimating and control seems to be more erratically performed than schedule planning and control. One possible explanation for this is that companies are more schedule-driven in their projects than cost-driven and therefore are willing in actuality to overspend their projects to meet time commitments.

Schedule and Cost Reliability

At least as important as good SPI and CPI ratios is the reliability of such cost and schedule performance. That is, a PM organization that erratically delivers projects with SPI or CPI = 1.00 is not as trustworthy to top management as a team that delivers such reliably.

Our work shows that companies with higher PMM deliver projects with more predictable schedule and cost results. As companies improve their PMM their individual SPI results tend to deviate less from the overall SPI average. This is seen in Figure 9 by examining the standard deviation of SPI over a portfolio of projects.

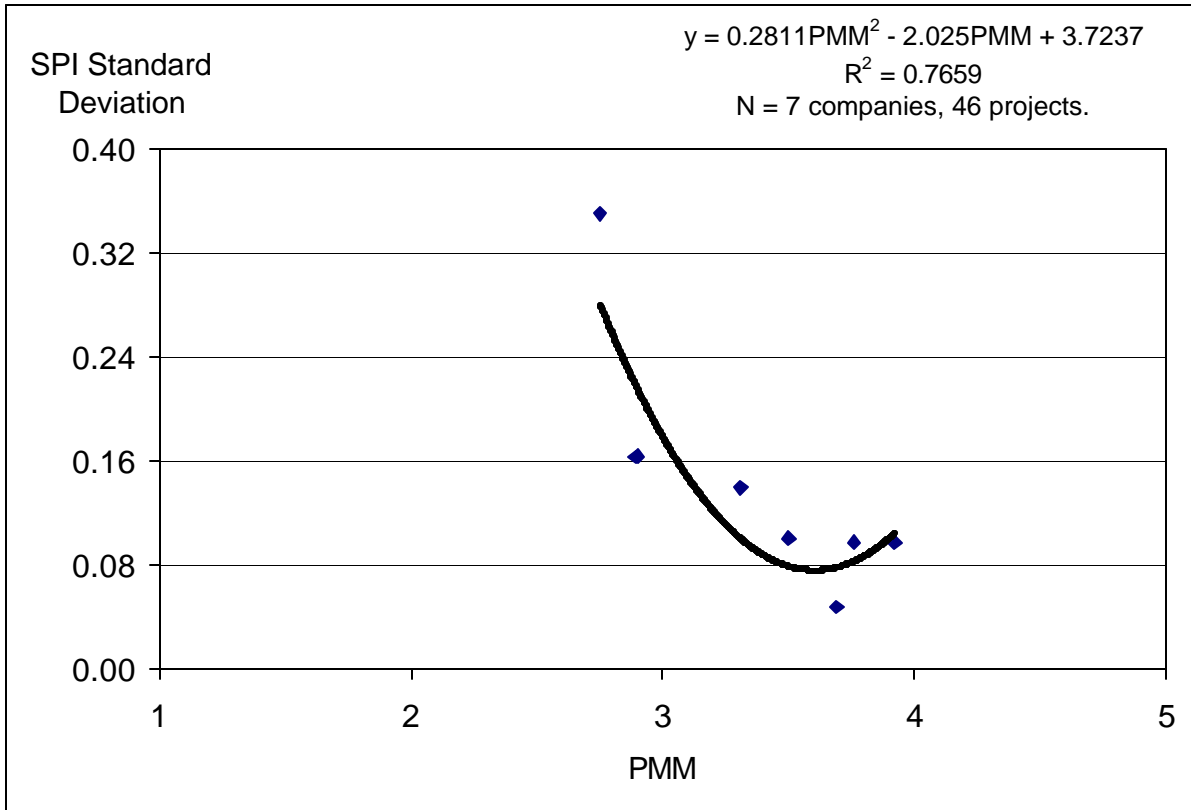


Figure 9: SPI Standard Deviation vs. PMM

As also seen with these data, CPI standard deviation decreases as PMM improves. That is, companies with high PMM are less likely to have projects where the budgets escalate out of control. See Figure 10.

Budget accuracy is important because it reduces fiduciary risk. For capital-intensive projects, this can lead to a reduction in the cost of capital and large savings for companies that borrow money for project budgets or higher financial ratings for companies that obtain project financing from the capital markets.

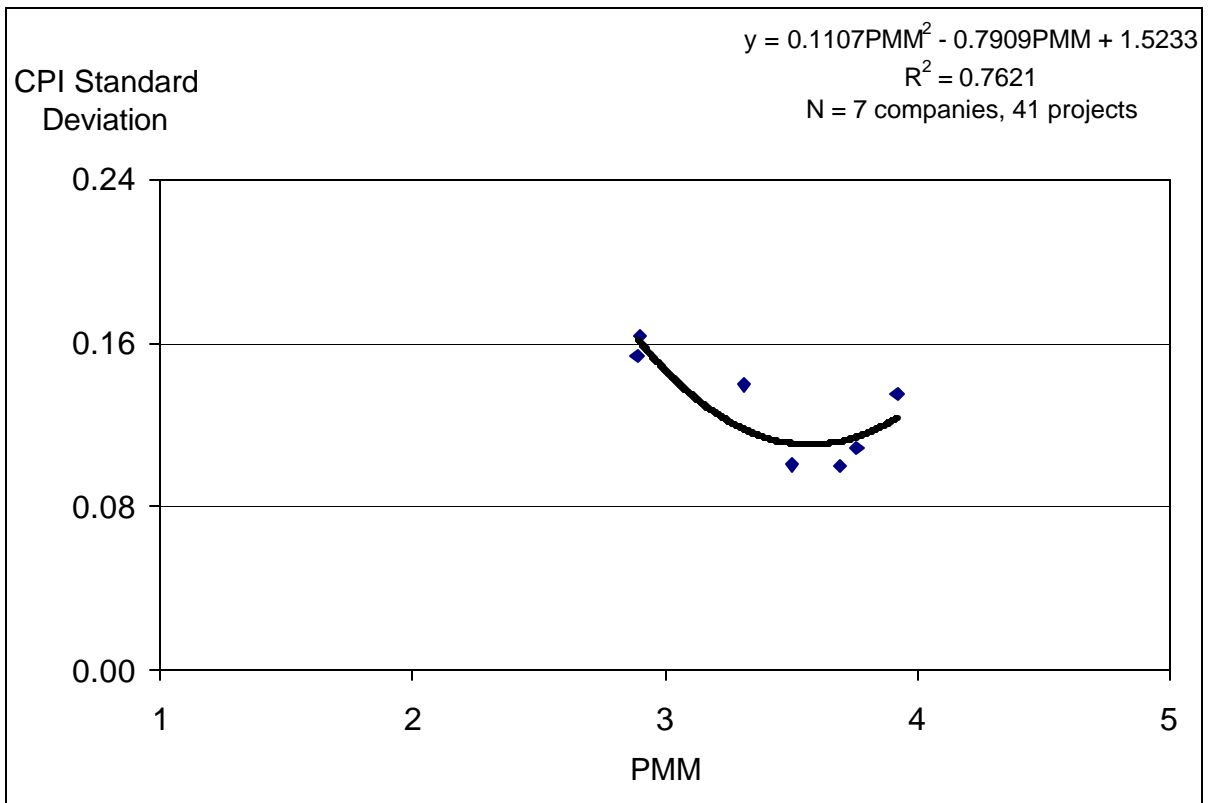


Figure 10: CPI Standard Deviation vs. PMM

A subtle though crucial point that many people overlook is the reliability of SPI and CPI metrics. Many people think that a SPI or CPI that averages more than 1.00 is good, but this is not necessarily the case. It is of little help to a company in estimating project durations if half of its projects have an SPI of 1.25 and the other half 0.75. Such a large variation thwarts effective planning and management of multiple projects.

Similarly, a company that has an average SPI and CPI substantially over 1.00 is being too conservative in its estimates. It may be “leaving money on the table” and not undertaking as many projects as it could with more realistic forecasts.

The data for Figures 9 and 10 come from a relatively few number of companies, 7 and 7 respectively, but a large number of projects, 46 and 41. In statistical terms this means there is a reliable number of degrees of freedom.

PMM and PM Cost Ratio

PM Cost entails summing all of the costs incurred by PM to deliver a project. It includes labor and burden costs for direct and indirect PM personnel, PM hardware, software and communications costs, and PM training costs, as well as those costs associated with consultants and subcontractors.

In companies that we have studied this PM Cost Ratio is usually computed by annualizing and dividing all direct PM costs incurred by the total value of the projects executed during that same time frame.

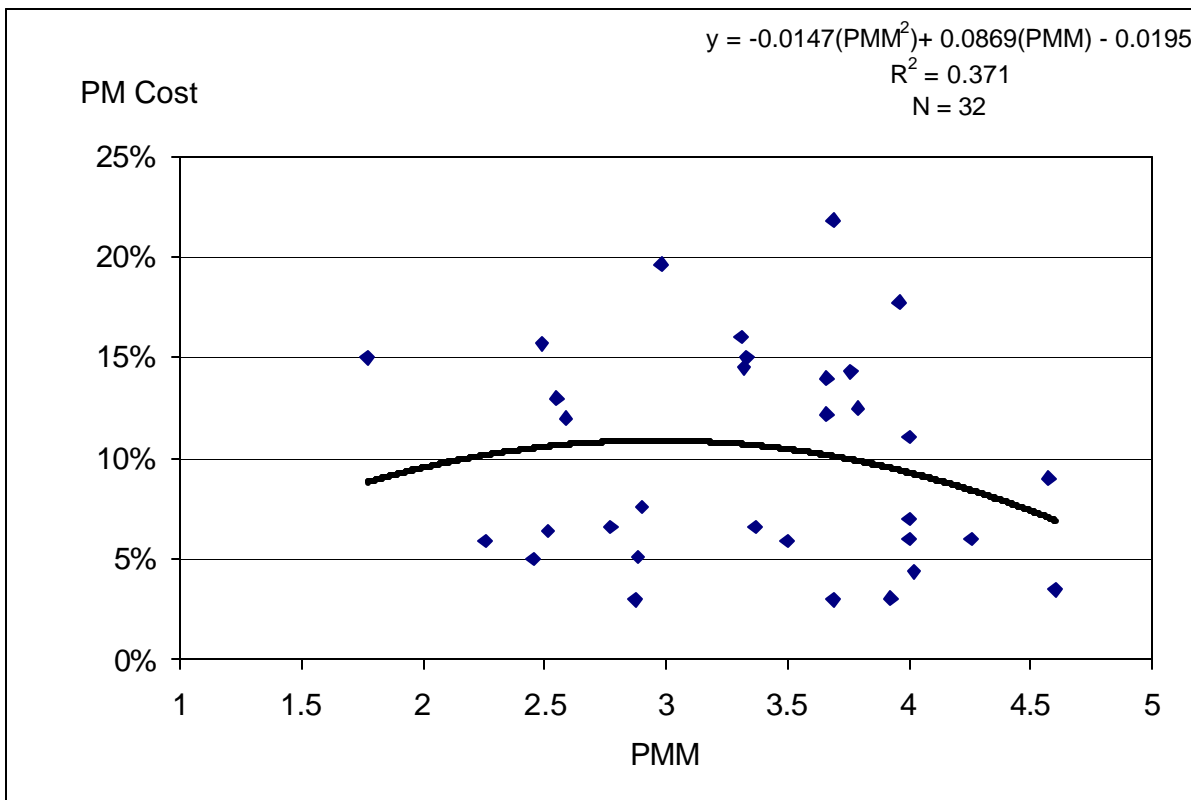


Figure 11: PM Cost vs. PMM

As the regression line in Figure 11 displays for $N = 32$ companies, the PM Cost Ratio increases until approximately PMM Level 3. From there the PM Cost Ratio steadily decreases with increasing PMM. This means that companies investing in PM will initially see their investment costs outstrip benefits. Eventually however, the investments pay off, as mature companies actually pay less, as a percentage of PM costs, to improve their PMM. Economies of scale do hold rewards in Project Management, just like most other aspects of business.

Bringing it to Closure: The Virtuous Cycle of Project Management

Based on case study interviews and data collected from companies assessed during our research, we have created Figure 12 to illustrate what we call the Virtuous Cycle of PM. This schematic allows organizations to map their PMM and investments in PM to plan and ensure a logical and sustainable progression along the PM cost effectiveness journey.

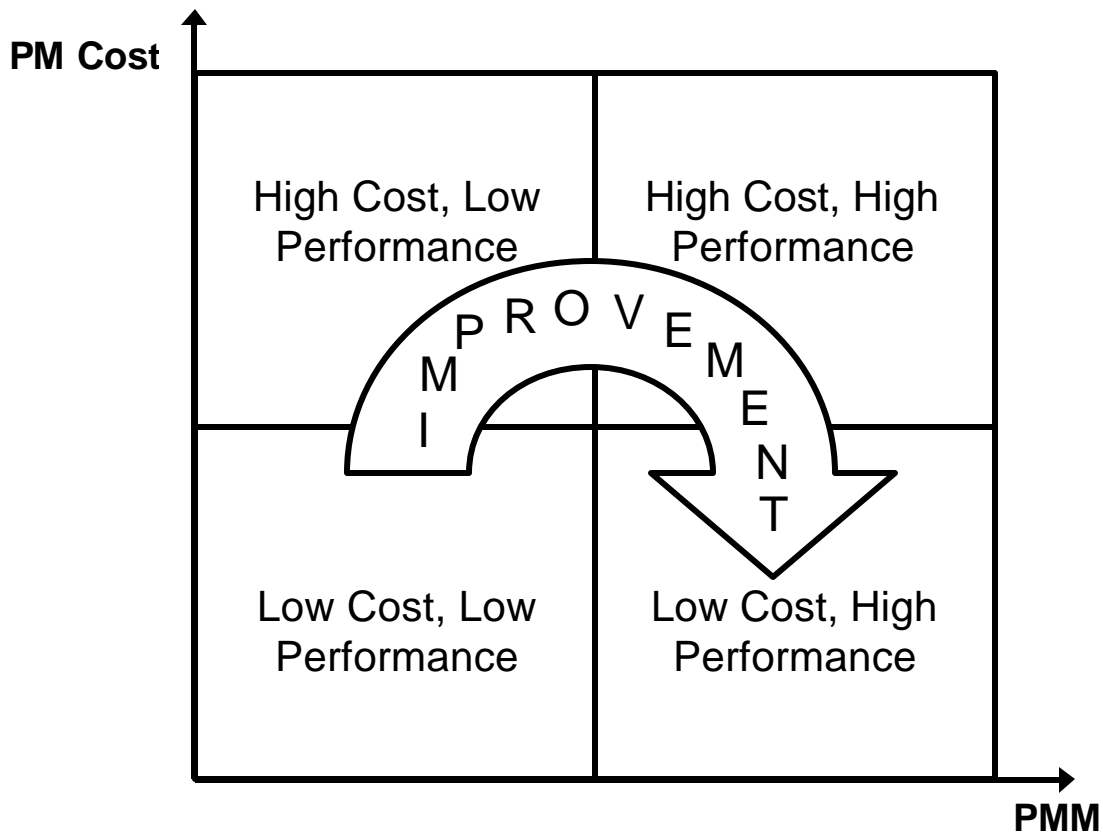


Figure 12: The Virtuous Cycle of PM

The axes of the matrix pit PMM against the PM Cost Ratio. This diagram was developed by analysis of PM operations of 24 companies. Quadrants were divided so that each is represented by an equal number of companies. The boundary between “good” and “bad” PM Cost Ratio % (the vertical axis) is approximately 5% to 7%; the PMM division is approximately 3.30 to 3.35. PM growth goes through the clockwise cycle depicted on this diagram though the speed will vary depending on variables such as management commitment, industry circumstances, and the size and dispersion of the company.

Companies in the lower left-hand quadrant are underinvested in PM and are earning low returns, if any. Without adequate investment, both PMM and project performance will continue to lag behind peer organizations.

Continuing to the upper left-hand quadrant is the next step of the progression, and an area where no organization should reside for any prolonged duration. In this quadrant, PM investments have begun to increase, but benefits are not yet being proportionately realized. Organizations whose PM practices exist in this region for extended periods are in danger of paying a steep price for relatively poor PM performance.

In the upper right-hand quadrant, the benefits of improving PM are starting to be realized within the organization, but the cost of those improvements is still relatively steep. While having a high PMM is commendable, the victory is somewhat bittersweet in that PM is still costly for these organizations.

The lower right-hand quadrant is the ideal locale for company-wide PM practices. Companies in this category have best-of-class PMM, low PM Cost and very high PM/ROI. These companies are in "PM Nirvana" mainly because they have the highest throughput of projects with respect to their PM investment. For organizations in this arena, PM is a strong organizational competence and, even in some circles, regarded with competitive envy.

Since companies that have high levels PMM are, by definition, companies with high levels of PM learning (see Figure 1), they can be self-sustaining and self-improving. This allows them to become pioneering and agile organizations that grow and adapt to changing marketplace challenges, thus offering more value over time.

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