



The Successful Project Management Office

Maximizing Project Returns and
Enforcing Strategic Alignment

A Fair Isaac White Paper

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“The trend is rising within the IT function to create a PMO to drive an effective project portfolio. By 2007, 50 percent of Global 2000 enterprises will adopt an enterprise portfolio management approach to strategically and tactically deliver business value, optimize all enterprise investments, and lay the groundwork for a technologically sophisticated business strategy.” – META Group, 2003

Program Management – An integrated approach to value

Originally growing out of the need to coordinate enterprise-wide efforts to address the Y2K phenomenon, Program Management Offices (PMO) now represent the fastest growing organizational innovation in business today. Why? According to a recent poll conducted by the Project Management Institute and CIO Magazine (July, 2003), the top two reasons for implementing a PMO are improving project success rates and implementing standard practices. But the real value of the PMO extends much deeper.

Why does the PMO concept persist?

A successful PMO can deliver much more than the simple assurance that projects stay within their originally projected schedules and budgets, as important as that is. The real value of a PMO, or at least one that is fully integrated into the enterprise's business process, is in making sure that every project undertaken advances the company's strategy in a measurable way, and does so better than other projects competing for resources. It's important to remember that the only reason for undertaking any project is if it advances the company's strategy. As obvious as that may seem, in many cases today this simple objective is not met by a significant percentage of enterprise projects. Just as importantly, many similar projects may exist either in proposal stage or in implementation, and each may be bidding for the same or similar resources, or attempting to obtain the same objectives. Without a central point of control such as that afforded by the PMO, few enterprises can effectively manage these types of situations.

What's driving PMO growth now?

Several key factors contribute to the continued growth of the PMO, both economic and regulatory.

Enterprise Growth & Integration

One problem arising today from the increasing size and complexity of modern enterprises is that of implementing large scale initiatives that touch many different branches of the company structure. Y2K provided an excellent example of the kinds of interconnected complexity inherent in large scale initiatives today, but it is only the most publicly visible example. Such large, interconnected projects can crop up today in

everything from an ERP upgrade to mandated regulatory changes. For example, real protection against the persistent problem of fast spreading viruses, which so far have not yet packed the full destructive punch predicted by many security analysts, may well pose the exact type of urgent enterprise wide integration project that will be nearly impossible to implement without a genuinely effective PMO.

The need for a good PMO process also arises from global economic conditions. Even before the economic downturn of recent years, the increasing globalization of business prompted many companies to grow through merger or acquisition. This is particularly true in the market for financial services, but it appears in many industries including the media world, manufacturing and even IT. One of the most difficult tasks when combining companies is the integration of different, and sometimes highly incompatible, operations including extensive IT infrastructures. The expedient way out of this problem frequently involves leaving the acquired company's systems in place and working around the incompatibilities. But in the long run this strategy will only increase the fragmentation of operational resources and increase the overall operational risk and inefficiency of the organization.

The proper course will require integrating all of the disparate systems into a coherent whole. This may include jettisoning some systems, modifying others and creating new applications to bridge gaps. A full-fledged integration effort may even require an overhaul of the entire enterprise IT architecture, pointing the company in the direction of building a Web services architecture for example. In fact, some analysts predict a future where the only way to handle successive company acquisitions and their attendant system integration needs will be by creating a foundation that allows disparate systems to simply plug into an existing, and highly flexible, systems architecture such as that promised by Web services. Any enterprise whose growth strategy includes a significant focus on acquisitions will need to examine this argument closely, and honestly assess the long-term cost benefit trade-off of adopting this kind of architecture.

A PMO can, over time, simplify the problem of growth through acquisition. First, by simply cataloging all of an enterprise's systems and operations in one place, the PMO creates a centralized information and reporting source for operational issues. Secondly, by analyzing the extended infrastructure and its component parts, the PMO can begin to identify and rectify redundancies and inefficiencies. Third, by creating senior management controls, the PMO can begin to integrate all of the enterprise's disparate operations, including mammoth projects such as overhauling the IT architecture, into a coherent whole that is focused solely on implementing company strategy.

The regulatory environment - Sarbanes-Oxley, Basel II & Other Mandates

Several new regulatory developments, including the Basel II Accord, which sets international standards for the amount of risk capital banks need to keep in reserve, and the Sarbanes-Oxley Act of 2002, which sets financial disclosure standards for all publicly traded companies in the United States, have focused substantial industry attention on a new category of risk management called operational risk.

The Sarbanes-Oxley Act, enacted in response to the accounting fraud scandals that engulfed Enron, Worldcom, Global Crossing and others, requires any publicly traded company in the U.S. to “disclose to the public on a rapid and current basis such additional information concerning material changes in the financial condition or operations of the (company) ... as the Commission determines ... is necessary or useful for the protection of investors and in the public interest.” (Sec. 409)

Although varying interpretations of the Act’s proper interpretation have been put forth, in order to disclose material changes in operations “on a rapid and current basis” a company may need sweeping changes in IT infrastructures as well as significant improvements in the way they define and measure risk profiles for those operations. It is difficult to envision this process going smoothly, or perhaps even happening at all, without an effective PMO driving it.

Similarly, the Basel II Capital Adequacy Accord, the enforcement of which is also expected to start in 2005, has created a new definition of operational risk that would require banks to keep extra reserve capital to offset potential losses from operational failures, disruptions or fraud. Implementing these risk requirements of Basel II could have ramifications as significant as those from Sarbanes-Oxley. For example, Basel II requires financial companies to create and maintain databases of historical operational losses and projections of potential future losses. This means that all new operational procedures and proposed systems, programs and projects, as well as those currently existing, will need to be evaluated in terms of their operational risk potential, and then continually monitored for compliance.

Although the operational risk requirements of Basel II apply only to the financial industry, and even in that case only to a small subset of large banks, the reporting needs for Sarbanes-Oxley will apply to any publicly traded company in the U.S.

Other recent regulatory requirements, particularly the privacy mandates imposed by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Financial Modernization Act of 1999 (Gramm-Leach-Bliley), also raise the potential legal and PR costs of failures in large project and program management. Thus every large enterprise should today be considering adopting some form of operational and program risk management program. The PMO provides the obvious vehicle for implementing these disciplines.

What makes a PMO good?

A well-designed and properly empowered PMO will provide the following services to the organization:

- **Master Planning:** The team must be able to understand the overall portfolio of project opportunities, their relative risk/return profiles, and their strategic importance to the enterprise. The key success criterion for a PMO is its ability to focus all project work on clearly identifiable and measurable strategic objectives.

- Enterprise Planning and Risk Management: One of the most important tasks for the PMO is to measure project risk accurately and reliably, from the time of initial proposal through implementation to post-implementation evaluation.
- Resource Management: The team must understand and manage within the internal company culture as well as managing external vendor relationships.
- Process Management: The PMO should provide research services, evaluating best practices, new methodologies, and creative techniques for streamlining the flow of project proposals, approvals and implementations.
- Integration Management: The PMO must understand the interfaces among current systems, and understand the value of the installed portfolio of IT assets, both hardware and software.
- Financial Management: The PMO team must be conversant with financial tools, budgetary guidelines and historical financial trends within both the company and the industry.
- Communication and Awareness: Cultural and organizational awareness coupled with an understanding of how to move initiatives through a complex organizational structure is essential to the success of the PMO.
- Problem Intervention: The team must be able to monitor project progress and understand when and how to intervene in problem projects.

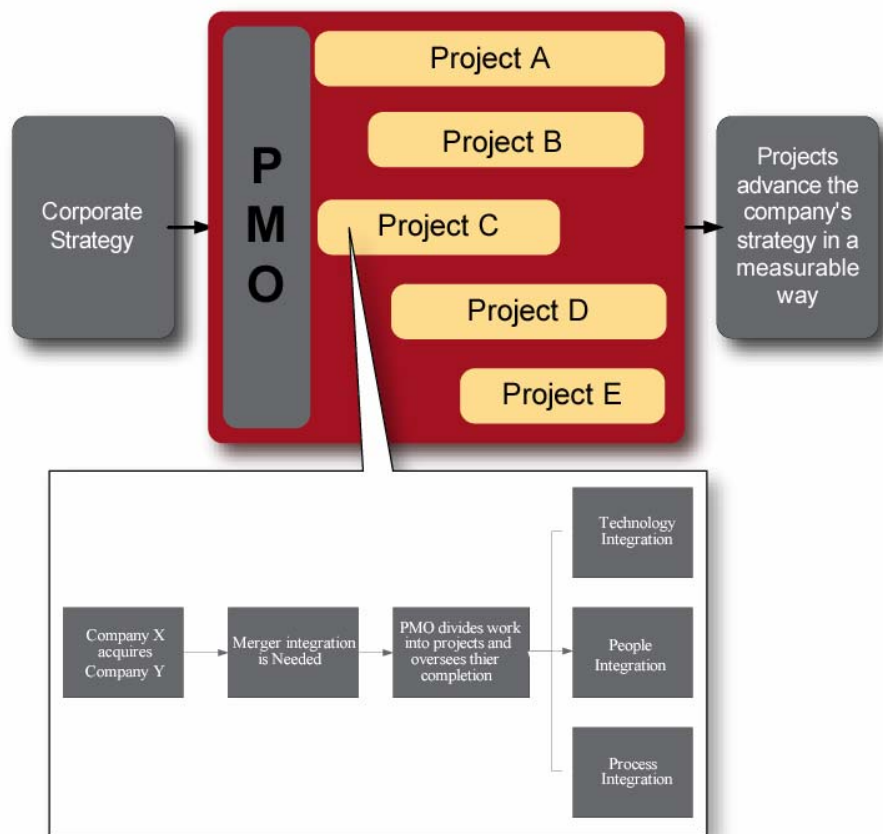
A properly empowered PMO is uniquely situated to see and comprehend the subtle, yet potentially dangerous flaws in operational systems throughout the enterprise. Because a well-run PMO monitors every project in the enterprise, and by extension every process and operation touched by those projects, it has a unique ability to see enterprise operational complexity as a whole, and therefore to identify potential operational problem areas before they become acute.

Although most PMOs currently in operation focus primarily on reporting project status to senior management, the potential for using a PMO in managing operational risk and enforcing strategy is substantial. The enterprise PMO can provide the organizational structure to define, measure and report on operational risk, strategic alignment, and genuine project and program ROI.

What are the key challenges of the PMO?

Many PMOs today may need to develop substantially more authority and internal organizational power in order to achieve the goals set out here. In particular, the PMO will need the ability to conduct thorough and honest assessments of project and operational risk within business units, whose managers may have a built-in incentive to hide such risks from “prying eyes.” These organizational issues can be significant and solving them may take substantial time and diplomatic effort from senior management, human resources and IT. A successful PMO also requires a few other key conditions.

- Senior management buy-in and active participation. Surveys of successful PMOs, and unsuccessful ones, show that unless senior business management plays an active and continuing role in the PMO it simply cannot succeed.
- Defining the key metrics of success. Though delivering projects consistently on schedule and within budget would mark a significant improvement for most companies, it is not enough to decide that those projects are therefore successful. Instead, the enterprise must develop new metrics to measure how each project fulfills the strategic vision of the company and contributes to the bottom line.
- Focus and restraint. Informal surveys of PMO managers show that one of the most important roles played by their PMO is in reducing the number of active projects within their company, sometimes by as much as 75%. This type of focus results from the insistence that all projects must advance the company strategy and redundant projects are not allowed. The corollary benefit is that project resources become much better matched to project needs, and the smaller number of active projects develop a much higher probability of success.

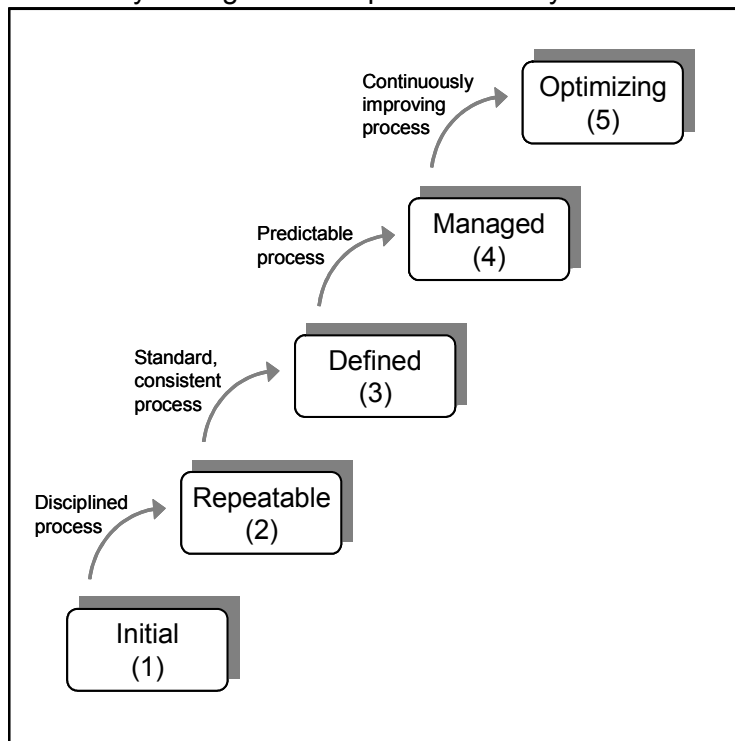


IT Governance – Practical tools for the PMO

CMM & CoBiT

Because of the unacceptably high failure rate of IT projects throughout all industries, the IT establishment has developed a substantial body of techniques and processes for controlling risks from large projects. These techniques and processes focus on issues caused by the complexity and interconnectedness of contemporary computer systems. But these IT risk management tools can also provide reliable methods for assessing and managing any highly complex process, and so their effectiveness can reach beyond traditional IT projects to the general area of PMO oversight.

The Capability Maturity Model (CMM), developed by the software development community through efforts spearheaded by the Software Engineering Institute (SEI) at



Source: <http://www.sei.cmu.edu/cmm/papers/cmm.pdf>

Carnegie Mellon University, has become a de facto standard for assessing and improving software processes. With the CMM the software community has put in place an effective means for modeling, defining and measuring the maturity of the processes used by software professionals. It is important to understand that the CMM measures an organization's ability not only to develop systems, but also to install and manage third-party systems. It can generally be viewed as a measure of a company's ability to manage its total software environment including internal development, outsourced systems and vendor supplied packages.

The CMM recognizes five levels of maturity for the systems development process:

1) *Initial*. The software process is characterized as ad hoc, and occasionally even chaotic. Few processes are defined. Success depends on individual effort and heroics.

2) *Repeatable*. Basic project management processes are established to track cost, schedule and functionality. The necessary process discipline is in place to repeat earlier successes on projects with similar applications.

3) *Defined*. The software process for both management and engineering activities is documented, standardized and integrated into a standard software process for the organization. All projects use an approved, tailored version of the organization's standard software process for developing and maintaining software.

4) *Managed*. Detailed measures of the software process and product quality are collected. Both the software process and products are quantitatively understood and controlled.

5) *Optimizing*. Continuous process improvement is enabled by quantitative feedback from the process and from piloting innovative ideas and technologies.

(Definitions are from the SEI Web site <http://www.sei.cmu.edu/cmm/cmm.sum.html>)

Because the complexity of software development far surpasses that of most operational changes, it presents a higher level of risk than most other operational processes. But the lessons learned from the analysis of software failure prevention are applicable when facing complex operational changes of any kind. The CMM can be adapted or simplified to add reliability to any change management process.

In addition to the CMM, the software development industry has developed Control Objectives for Information and related Technologies (CoBit). CoBit was developed by the IT Governance Institute to provide a framework that addresses management needs for control and measurability of IT processes. It does so by providing a set of 34 IT process descriptions along with tools to measure the risks in those processes for any given organization, and provides CMM style assessment tools for defining critical success factors, key goal indicators and key performance indicators. The CoBiT executive summary states:

“Dependence on electronic information and IT systems is essential to supporting critical business processes. Successful businesses need to better manage the complex technology that is pervasive throughout their organizations in order to respond quickly and safely to business needs. In addition, the regulatory environment is mandating stricter control over information. This in turn is driven by increasing disclosures of information system disasters and increasing electronic fraud. The management of IT related risks is now being understood as a key part of enterprise governance.”

The emergence of both CMM and CoBit comes in response to the need for greater understanding of operational risk and better tools for measuring it and managing it. And although both CMM and CoBit are a result of, and an answer to, the unique problems of complexity within the software development process, the management tools and techniques embodied in both disciplines in fact address any complex operational environment. Therefore, any successful PMO will need to address the issues covered by CMM & CoBiT and would do well to explore these disciplines closely, extracting and implementing those components most applicable to the company's own environment.

Project Portfolio Management

Project Portfolio Management (PPM) represents yet another newly emerging management discipline aimed at reducing risks from complex projects. PPM seeks to take the principles of financial portfolio management and apply them to the management of investment risk/return tradeoffs from large capital projects. PPM assesses the risk/return profile of a series of potential investments the company can make in its business and presents them to management in a manner conducive to making optimal risk/return choices from among those investment opportunities. A subordinate area of PPM also seeks to measure and understand the value of the current portfolio of existing systems, infrastructure and operational processes embedded in the company's current operating environment.

Like CMM, PPM arose in response to the dismal track record of major IT initiatives in large enterprises and the ramifications of that track record, which can extend far beyond the immediate loss of invested dollars in project development. The most obvious additional risk is the potential disruption of business. But more importantly, the failure or cancellation of a major enterprise initiative, even if it is only a partial failure, affects not only the immediate operational objectives of the initiative, it also reduces or even eliminates certain future options the company can pursue, thus limiting its flexibility and adaptability in the marketplace. In other words, project failure removes options and since company options, like financial options, have real value (as defined by the discipline of Real Options Analysis) project failures result in real value destruction.

Measurement – The common thread

All of the management disciplines discussed so far rest on a foundation of thorough and accurate measurement, particularly the measurement of risk, returns and alignment with business strategy of PMO-managed initiatives. Many of the disciplines require managers to analyze metrics they do not currently track. Some require imagining new metrics to describe risks that have not previously existed. In all cases, the complexity of today's enterprise in the context of an international business environment and the close interdependence of business operations on internal IT infrastructure and on inter-networked external IT makes the process of proper measurement substantially more daunting than it has been in the past.

Statistical risk assessment

Fortunately, statistical measurement techniques offer a proven tool for conducting the kinds of analyses and estimations of future occurrences necessary to fully understand the operational risks and strategic requirements of today's large enterprise.

For example, studying the effects of IT investments on the financial performance of a company might show at an aggregate level how well, or poorly, the company invests its technology dollars. Conducting a statistical analysis of financial performance figures over time in comparison with IT investment figures over the same period can quantify the positive, or negative, connection between the two. Similarly, this type of analysis

can show the financial implications of operational changes, and could serve as a proxy for measuring historical exposure to operational or project related losses.

Particularly in the case of financial institutions, it is critically important to understand both the level of exposure from a potential operational loss and the probability that such a loss might happen. Statistical simulation and other tools can yield a very descriptive picture of the expected loss, the worst case loss and the amount of variability, i.e. the range of likely losses, which can occur from any given operation.

Defining operational risk variables

One of the most difficult tasks in managing operational risk, whether from a newly proposed project, the integration of a recently acquired company, or some other type of major initiative, will be the accurate definition of risk variables. Managing the wrong variables will produce negligible, or worse, negative, results and could discredit the PMO within the enterprise.

Although CMM, CoBit, PPM and other new disciplines offer substantial guidance, the process of choosing variables will still require careful measurement of historical performance against operational data. Although a good manager's instincts may intuitively point to the correct variables for measurement, assigning correct weights and significance to those variables is best accomplished through careful analysis using judiciously applied statistical measurement techniques.

Measuring compliance – understanding after the fact results

Measuring, analyzing and forecasting are, in the initial stages, highly dependent on very subjective measures of probability for assessing likely outcomes. Even with reconstructed historical data, carefully designed measurement metrics, and the implementation of proper management structures, the actual effectiveness of PMO activities can only be measured over time. Thus it is critically important to design accurate and meaningful measurement systems that both managers and employees will actually use in the course of their daily work.

Management will need to assess the effectiveness of the PMO through the use of continual feedback, which should carefully compare forecasts with actual operational performance. Particular attention should be paid to the appropriateness of the risk variables being measured (are they the right ones?), the forecasts of exposures (were the estimates reasonable?), the probabilities assigned to the forecasts (do some problems show up more, or less, consistently than forecast?), and the actual financial returns from projects approved and supervised by the PMO.

The PMO will succeed through an iterative process of frequent revision and tuning, based on thorough and accurate measurement of ongoing performance and comparison of that performance to original estimates.

Tying It Together

Understanding and managing the PMO Process

The PMO process—and it's important to stress that implementing PMO practices is a continuous process, not a finite project—will evolve over time, so making definitive statements about the “proper” configuration of a successful PMO is perhaps unwise. But it is safe to say that such a process will need to address changes in:

- Determining Success – The results of a PMO *must* be measurable on the balance sheet, i.e. it must produce better overall company earnings. Whether you choose to measure this in earnings per share, net profitability, gross earnings or any other metric, if you fail to determine before hand how you will measure the financial success of your PMO, the entire exercise may well end up as a wasted effort that simply increases bureaucracy.
- Measurement and reporting tools – No matter which management methodologies a company might adopt, the necessity of creating new internal metrics, identifying new risks, and demonstrating the value of strategic alignment will require a new approach to internal measurement and reporting. Advanced statistical techniques may not be appropriate for all enterprises, but gaining new focus on deeper measurement of company performance will be essential, from a bottom-line financial perspective and through intermediate perspectives such as Total Cost of Ownership.
- Management structures – The PMO simply cannot succeed without genuine and substantial commitment from senior management. The cultural hurdles facing the PMO and the additional work, which some may see simply as another level of bureaucracy, will probably doom any effort not driven directly by senior management.
- Processes and methodologies – A successful PMO Process may not have to implement all, or perhaps any, of the various management disciplines described here. Implementing CMM, CoBit, or PPM may be appropriate for some organizations but not others, and even those who find value in these disciplines may choose to adopt them in varying degrees of comprehensiveness. None the



less, any organization moving toward a genuine PMO process will need to implement some level of additional methodologies or develop new internal methodologies that capture the key elements of these disciplines as they apply to the company's own environment.

- Feedback and tuning procedures – The PMO process is still a new and evolving discipline and it is unrealistic to believe that any program set up now will get it right the first time. Companies that are serious about implementing a comprehensive PMO process must recognize that it will undergo many changes before it reaches maturity. Developing proper feedback systems to gauge the effectiveness of processes as they are rolled out will be essential to creating a flexible and truly useful PMO.

Using your PMO as a competitive tool

The benefits from implementing a comprehensive PMO process will ultimately pay off through better controls over existing operations, greater understanding of risks, which can in turn lead to better business investment decisions, and a stronger competitive position. And lastly, companies should recognize and capitalize on the marketing potential created by the improvements in quality that will flow from a well-designed and carefully implemented PMO.

Fair Isaac - A trusted partner

End-to-End Services

Fair Isaac Professional Services brings you the best technology, from our own development teams and from leading vendors, plus world-class business consulting in an end-to-end services package that will address all your PMO needs. Our professionals will be with you from initial planning to final implementation and benefits measurement, delivering a holistic combination of technology, people, process and strategy that no other software company or consultancy can offer.

Extensive Experience

Fair Isaac Professional Services is home to over 400 professionals delivering innovative solutions to organizations worldwide. What you don't know about Fair Isaac Professional Services may surprise you.

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- We are currently engaged on nearly 400 projects
- Fair Isaac works with more than 2,000 businesses worldwide, and our technology serves thousands more through our partnerships.
- Fair Isaac Professional Services supports and delivers methodologies on over 50 core Fair Isaac solutions as well as third-party solutions

- Fair Isaac Professional Services personnel span 16 offices in 10 countries

We can help you apply the disciplines necessary for a successful PMO including implementing industry leading methodologies, decision management systems, creative analytics and our own intelligence management methodologies developed by our teams of industry experts. If we can't measure the impact of our solutions, we won't do it, period.

Imprimatur of authority

Fair Isaac has been a leader in the field of risk management for almost half a century. Our solutions systematically advance business growth and profitability through a combination of rigorous analytics, high-volume data processing, and intelligent software. As your organization faces the difficult tasks of understanding and managing your PMO process, Fair Isaac will bring you the benefit of our many years of experience and deliver bottom-line value to your organization now and into the future.

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