White Paper

Program Management Office

A Center of Excellence for Project Management

Kathleen B. Hass, PMP

Project Management and Business Analysis Practice Leader

Management Concepts

Abstract

The fiercely competitive twenty-first century business environment poses challenges at every turn. Both public and for-profit organizations must be flexible and adaptable to remain competitive. It is through successful projects that organizations manage change, deliver new business solutions, and ultimately, achieve their strategies. However, we continue to struggle to manage complex business change initiatives. Organizations around the globe are striving to improve their project and program management capabilities to drive changes from strategic goals, invest in the most valuable projects – those that deliver the highest value at the lowest cost and risk, and execute projects optimally to achieve business benefits from the new solutions as quickly as possible. This paper explores our disappointing project performance track record, the nature of twenty-first century projects, the need for a central focus on project and program management as a critical component of organizational transformation, and the role of a project management center of excellence in organizations.

Introduction

In the twenty-first century, business processes have become more complex – i.e., more interconnected, interdependent, and interrelated than ever before. In addition, businesses today are replacing traditional organizational structures with complex communities comprised of alliances with strategic suppliers, outsourcing contractors, networks of customers, and partnerships with key political groups, regulatory entities, and even competitors. Through these alliances, organizations are addressing the pressures of unprecedented change, global competition, time-to-market compression, rapidly changing technologies, and increasing complexity. Since business systems are significantly more complex than ever, projects that implement new business systems are also more complex. To reap the rewards of significant, large-scale business transformation initiatives designed to not only keep organizations in the game but make them a major player, we must be able to manage complex business transformation projects. However, huge cost and schedule overruns

have been commonplace in the past.[1] Looking at the numbers, our past project performance record is troubling:

- $80–145 billion per year is spent on failed and cancelled projects (The Standish Group International, Inc.)
- 25%–40% of all spending on projects is wasted as a result of re-work (Carnegie Mellon)
- 50% are rolled back out of production (Gartner)
- 40% of problems are found by end users (Gartner)
- Poorly defined applications have led to a persistent miscommunication between business and IT that largely contributes to a 66% project failure rate for these applications, costing U.S. businesses at least $30 billion every year (Forrester Research)
- 60%–80% of project failures can be attributed directly to poor requirements gathering, analysis, and management (Meta Group)
- Nearly two-thirds of all IT projects fail or run into trouble. (Refer to Figure 1 for the results of the 2006 CHAOS Survey.) The trend is going in the right direction (the 2004 Chaos Report suggested that nearly three-fourths of projects are failed or challenged); however, we must find better methods to manage critical business projects in the twenty-first century.

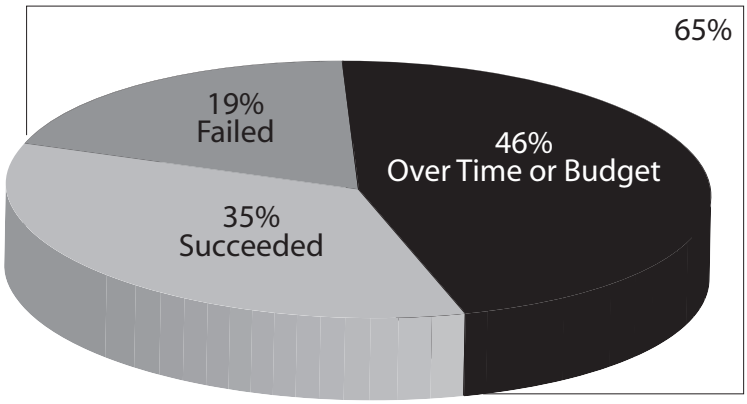

Figure 1: Project Performance Track Record – The Standish Group 2006 Chaos Report

Twenty-First Century Projects

Virtually all organizations of any size are investing in large-scale transformation of one kind or another. Contemporary projects are about adding value to the organization by uncovering breakthrough ideas, optimizing business processes, and using information technology (IT) as a competitive advantage. These initiatives are often spawned by mergers or acquisitions, new strategies, global competition, or the emergence of new technologies. Other initiatives are launched to implement new or reengineered business sys-

1 New York Times, 11 July 2002 "Cost overruns (totaling hundreds of billions of dollars) for large public works projects have stayed largely constant for most the last century."

tems to drive waste out of business operations. Most of these changes are accompanied by organizational restructurings, new partnerships, cultural transformation, downsizing or right-sizing, and enabling IT systems. Others involve implementing new lines of business and new ways of doing business (e.g., e-business). In addition to these business-driven changes, IT organizations are transforming themselves, striving to become more service-oriented and better aligned with the business. In the twenty-first century, project teams are no longer dealing with projects in isolation, but with the overarching process of business transformation when the reach of change affects all areas of the organization and beyond to customers, suppliers, and business partners, making the complexity of projects considerable.

There are various dimensions of project complexity, one or all of which can be present on large-scale change projects. Projects today are comprised of large, multi-layered, geographically dispersed, and multi-cultural teams. Projects are too long in duration to be free from changing business needs. Projects frequently have inflexible schedules, budgets. and scope. All too often, projects have ambiguous, unstable. and poorly understood requirements. The very nature of projects today and their strategic importance to the organization makes them highly visible, politically charged. and riddled with conflicting expectations. Large-scale organizational change involves inter-project dependencies, cultural sensitivity, and often unproven technology. Managing complex business projects requires a new kind of knowledge, skill. and ability, and a much stronger focus on *the business versus the technology*. Consequently, the role of project management is quickly becoming central to successfully manage business transformation.

Emerge the Project and Program Management Center of Excellence

Centers of excellence (CoE) are emerging as a vital strategic asset to serve as the primary vehicle for managing complex change initiatives, a business support function just as critical as accounting, marketing, finance and HR. A CoE is a team of people that is established to promote collaboration and the application of best practices.[2] CoEs exist to bring about an enterprise focus to many business issues, e.g., data integration, project management, enterprise architecture, business and technology optimization, and enterprise-wide access to information. PMOs, a type of CoE, are proliferating as a centralized approach to managing projects, in response to the challenges associated with complex projects in an environment with low levels of project management maturity and governance. Industry leaders are effectively using various types of CoEs.

Office of Management and Budget Federal Enterprise Architecture PMO

In the Federal government, PMOs are flourishing. A prominent example, the Federal Enterprise Architecture (FEA) PMO, was formed to drive the transformation within the Federal government to one that is citizen-centered, results-oriented, and market-based.[3] Toward that end, the Office of Management and Budget (OMB) is developing the FEA, a business-based framework for government-wide improvement. In contrast to many failed "architecture" efforts in the past, the FEA is entirely business-driven. Its foundation is the Business Reference Model, which describes the government's Lines of Business and its services. This business-based foundation provides a common framework for improvement in a variety of key areas such as: budget allocation, information sharing, performance measurement, budget and performance integration, cross-agency collaboration, e-government, and component-based architectures. The

2 Geiger, Jonathan G. *Intelligent Solutions: Establishing a Center of Excellence*. BIReview: March 20, 2007. Retrieved from the Internet 29 March 2007. www.bireview.com/article.cfm?articleid=222

3 E-Gov, Powering America's Future with Technology. www.whitehouse.gov/omb/egov/a-1-fea.html

FEA PMO, located in OMB's Office of E-Gov and IT, equips OMB and Federal agencies with a common language and framework to describe and analyze technology investments, enhance collaboration and ultimately transform the Federal government as set forth in the President's Management Agenda.

Hewlett-Packard Centers of Excellence

HP uses the CoE model when implementing large-scale organizational change for their clients, e.g., a service-oriented architecture (SOA). SOA is a breakthrough software design technique that allows the development of smaller "services" (groups of software components that perform business processes). The services are then hooked together with other services to perform larger tasks. The services are loosely coupled, have an independent interface to the core system, and are reusable. Web services, one of the important strategies to increase business and reduce transaction costs, are an example of SOA. SOA represents a transformation in how businesses and IT develop business solutions. It is an effort to drive down the total cost of ownership of IT systems, thus freeing scarce resources to develop innovative IT applications and infrastructures. HP describes their centers of excellence as a critical component of large-scale organizational change. HP looks upon their SOA CoEs as a swat team that is *fully focused* on implementing the reusable service-oriented components and infrastructure.[4] Benefits of the HP CoEs include many of the same benefits we seek from PMOs:

- Establishes enterprise standards, procedures, and governance
- Standardizes infrastructure, development methods, and operational procedures
- Increases business agility, i.e., the ability to adapt quickly as the environment changes
- Reduces risk, complexity, redundancy, and support complexity
- Aligns business and IT
- Enables re-use and faster time-to-market
- Presents one face to the customer

IBM Centers of Excellence

IBM is also heavily invested in CoEs. The IBM project management CoE is dedicated to defining and executing the steps needed to strengthen its project management capabilities. The IBM PMCoE strives to combine external industry trends with their internal insight to develop project management policy, practices, methods, and tools. The IBM PMCoE has experienced such success that in 2006 IBM announced creation of new centers of excellence to help customers better use information. At the centers, IBM software and service experts will develop six new solution portfolios, including business analysis and discovery, master data management, business process innovation, risk and compliance, workforce productivity and business performance, and process management – all focusing in improving business performance. These centers will develop products and services to better implement business analysis practices. Their goal is to help organizations transform information from *utility* for running the business to a *competitive asset*.[5]

4 Davis, Mark Frederick. *SOA: Providing Flexibility for the Health and Science Industry*. July 2006. Retrieved from the Internet 29 March 2007. http://h20247.www2.hp.com/publicsector/downloads/Technology_Davis_VB.pdf

5 Andrews, Chris. *IBM Initiative to Capture New Growth Opportunities in Information Management*. 16 Feb 2006 press release. Retrieved from the Internet 29 March 2007. www-03.ibm.com/press/us/en/pressrelease/19249.wss

Scope Considerations

As organizations successfully implemented PMOs, it has become clear that an approach to integrate other key disciplines that are required for project and program success is needed. These additional disciplines include business analysis, systems engineering, software engineering, and quality assurance. As disciplines are integrated, the PMO often becomes one office within an organizational center of excellence. Clearly, centers of excellence are becoming invaluable to successful management of large-scale change.

Business Analysis Center of Excellence

The business analysis center of excellence (BACoE) is an emerging best practice, a new type of center which serves as the single point of contact for business analysis practices. In that role, the BACoE defines the business rules, processes, knowledge, skills and competencies, and tools used by the organization to perform business analysis activities throughout the business solution life cycle, from strategic planning to project initiation to solution delivery and benefits realization, and finally, solution deactivation. As the discipline of business analysis becomes professionalized, it is no surprise that BACoEs are now emerging. Staffed with knowledgeable business and IT teams, these centers are fulfilling a vital need in organizations today – providing a business-focused home for current business analysis practices, technologies, and emerging trends. The BACoE serves as an internal consultant and information broker to both the project teams and to the executive management team. In addition, the BACoE is responsible for continuous improvement of business analysis practices. To that end, the BACoE continually evaluates the maturity of business analysis and implements improvements to overall business analysis capability. Clearly, as organizations embark upon implementation of a PMO, consideration needs to be given to including the business analysis practices as a key component of project success.

Program Management Office

PMOs are a twenty-first century phenomenon. Research conducted in 2003 revealed that more than 85% of PMOs in the private sector had been in existence for less than three years, with 70%+ of them established for specific initiatives (e.g., ERP/ERM). In the public sector, more than 75% of PMOs had been in existence for more than three years, driven in part because acquisition regulations encourage program management and oversight.[6] Although effective project management practices have been developed and deployed in both the private and public sectors, recent demands for better accountability and value management have pushed the PMO envelope. Through experience with multiple PMO implementations, we have identified the functions they most often performed.[7] The first five key functions are project-oriented:

- **Visibility.** To provide executive management visibility into the project status (schedule, cost, and quality) and the business opportunity expected from the project outcomes.
- **Cross-Project Dependency Management.** To provide coordination and management of the multitude of initiatives ongoing in the organization.

6 Cosgrove Ware, Lorraine, *CIO Research Reports: Best Practices for Project Management Offices*. CIO Magazine, 2 Jul 2003

7 Donn Di Nunno CCP, CDP, *Program Management Office (PMO) Basics*, Engineering, Management, and Integration, Inc. 2007

- **Resource Management.** To minimize resource contention by providing human, budget, and schedule resource management (planning, allocation, tracking) for all critical initiatives.
- **Risk Management.** To manage technical risks across multiple initiatives and guard against local optimums that drain effectiveness from enterprise initiatives.
- **Communication.** To provide a conduit for communicating project sponsor needs and expectations to project teams, as well as project team constraints and projections to project sponsors.

In addition, these seven are more strategic purposes:

- **Professional Development.** To provide career path, training, and mentoring for PMs (ranging from junior PMs to senior program directors), ensuring institutionalization of consistent PM processes and practices.
- **Technical Integration.** To cooperate with the technical architecture and infrastructure groups in ensuring integration across platforms, applications, and information, as well as vendor, contractor, and outsourcer management.
- **Program Management Best Practices.** To design and plan program management into the organizational structure, ensuring effective management across initiatives.
- **Release Management.** To coordinate with change and configuration management in the prioritization, placement in a release, and deployment of changed applications across the business units.
- **Continuous Improvement.** To provide a learning forum to convey lessons learned and project management best practices.
- **Governance and Portfolio Management.** One of the critical PMO functions is *benefits management*, a continuous process of identifying new opportunities, envisioning results, implementing, checking intermediate results, and dynamically adjusting the path leading from investments to business results. Therefore, the role of the enterprise PMO is multidimensional, including providing leadership for all initiatives to confirm that the organization's project management standards are maintained and adhered to, conducingt feasibility studies and preparing business cases for proposed new projects, participating in all strategic initiatives by providing expert project resources, and conducting benefits management to ensure strategic change initiatives provide the value that was expected.
- **Business and Technology Consulting.** The PMO is staffed with business/technology experts, who can act as a central point of contact to facilitate collaboration among the lines of business and the technology groups.

Since the late 1990s, when PMOs emerged to manage Y2K projects, the effectiveness of PMOs has varied widely. However, a pattern of maturity has emerged that gives executives insight into potential strategies. Less mature PMOs simply provide a fence around the project managers so that basic reporting becomes consistent. At the other end of the spectrum are mature PMOs where traditional project issues, e.g., resource management, project prioritization, planning and tracking, risk management, and benefits management are coordinated to generate improved organizational performance. As the PMO matures, it transitions from managing and/or supporting individual projects to managing large initiatives and business portfolios. Refer to Figure 2 for a depiction of typical mature PMO functions.

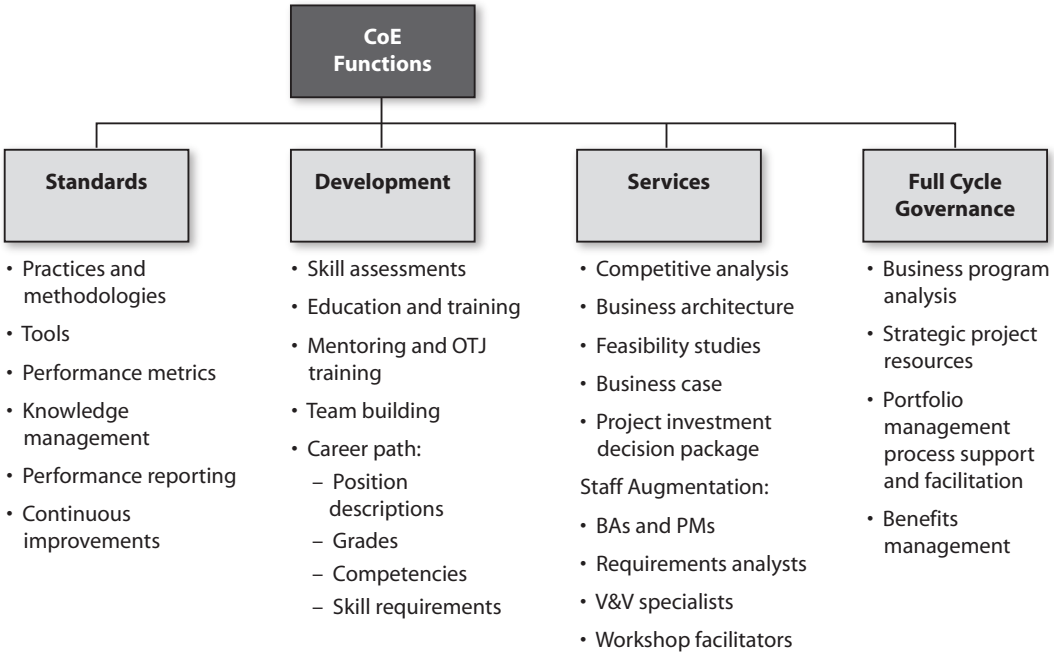

Figure 2: PMO Function Chart

Mature PMOs – A Strategic Asset

A fully functioning PMO is capable of providing services across the gamut of project management practices. The PMO mission and objectives are met through training, consulting and mentoring project team members, by providing resources to the project teams, by facilitating the portfolio management process, and by serving as the custodian of best practices. The mature PMO generally performs the following services.

- **Standards** – provides standard practices
  - **Methods** – defines the methodology, metrics and tools for use on all strategic projects within the organization
  - **Knowledge management** – maintains the central historical data base of standard tools, processes and business architecture components
  - **Continuous improvement** – periodically evaluates the maturity of the practices within the organization, and implements improvements to policies, processes, tools, and procedures
- **Development** – provides professional development for project managers and business analysts
  - **Career path** – along with the Human Resources Department, designs and maintains the project manager competency model including titles, position descriptions, and functions
  - **Coaching and mentoring** – provides mentoring services to project managers to help them meet the challenges of their current project

- **Training and professional development** – provides formal skills and knowledge assessments, and education and training for the professional development of project managers
- **Team building** – provides team building experiences to project managers and team members

- **Services** – serves as a group of facilitators and on-the-job trainers who are skilled and accomplished project managers to provide consulting support including:
  - Conducting market research, benchmark and feasibility studies
  - Developing and maintaining the business architecture
  - Preparing and monitoring the business case
  - Initiating, planning and managing projects
  - Managing project risks
  - Building and implementing an effective project communication plans
  - Eliciting, analyzing, specifying, documenting, validating, and managing requirements
  - Conducting effective stage gate reviews
  - Managing requirements verification and validation activities, e.g., the user acceptance test
  - Preparing the organization for deployment of a new business solution
  - Providing resources to augment project teams to perform project management and business analysis activities that are under-resourced or urgent

- **Full cycle governance** – promotes a full life-cycle governance process, managing investments in business solutions from research and development to operations. Provides a home (funding and resources) for pre-project business analysis and business case development.
  - **Business program management** – works with management and the portfolio management team to implement a twenty-first century model that transitions organizations from stand-alone project management to business program management.
  - **Strategic project resources** – provides senior-level project managers to lead the effort for strategic initiatives.
  - **Enterprise analysis** – provides process coordination and meeting facilitation to the portfolio management team. Conducts pre-project enterprise analysis activities and prepares the project investment decision package. A typical project investment decision package consists of the business case and the results of studies and other supporting information that provides senior management with a clear understanding of what business results are to be achieved through a major investment, including the contribution from new technology to those results.
  - **Benefits management** – measures the business benefits achieved by new business solutions; facilitates the adoption of a shared vision of the benefits realization process, managing the investment throughout the project life cycle and after the solution has been delivered. Ensures that the total cost of ownership (TCO) is understood and measured. TCO is the full life cycle product cost,

including the cost to build or buy, deploy, support, maintain, and service the solution in both the business and the technology operations.

Organizational Alignment Considerations

Although the PMO is by definition business focused, it is of paramount importance for successful PMOs to operate in an environment where business operations, IT, and other project-centric business units are aligned and in synch. In addition, the disciplines of project management, systems engineering, software engineering, and business analysis should be integrated for optimal performance. Therefore, to achieve a balanced perspective, it is important to involve business operations, research and development, new product development, IT (enterprise architects, database managers, infrastructure support teams, service level managers, capacity and availability managers, and application developers), PMO representatives and project managers, and representatives from the project governance group in the design of the PMO. Indeed, your organization may already have one or more centers of excellence. If that is the case, consideration should be made to combining them into one centralized center focused on program and project excellence. The goal is for a cross-functional team of experts (business visionary, technology expert, project manager and business analyst) to address the full solution life cycle from business case development to continuous improvement and support of the solution for all major projects.

High-Velocity Organizational Change

One of the golden rules of organizational change management is to combine the change efforts that affect a business process together under one coordinated initiative. Consider the potential changes that most contemporary organizations are undergoing concurrently.

- The *executive team* may be attempting to implement or improve a portfolio management process to select, prioritize, resource, and manage critical strategic projects. In addition, management may be implementing a new corporate scorecard to measure organizational performance.
- For enterprise-wide projects impacting several *business units*, some or all of the business units may be implementing improvements to the same business processes that will be changed by the larger change initiative.
- The *IT application development* may be undergoing large-scale change, e.g. implementing a different software development life cycle methodology, such as RUP (Rational Unified Process) or Agile development.
- The *IT infrastructure support team* may be implementing ITIL, (Information Technology Infrastructure Library), an internationally recognized best practice framework for the delivery of quality IT Service Management (ITSM). ITIL focuses on continuous improvements to IT processes to optimize service quality. ITIL is the most comprehensive and widely used ITSM framework.
- The *IT enterprise architects* may be implementing a new framework to develop the business, information, technology, application, and security architectures. An architecture framework is a model that is used for developing architectures, describing a method for designing an enterprise. The frameworks provide a recommended standards, tools and common language, providing order and structure to the architectural components.
- Existing PMOs and CoEs may be implementing a new methodology, tool, or process.

Coordination and Alignment of Change Activities

Clearly, these change initiatives must somehow be coordinated to optimize the return on the improvement efforts. PMOs that support centralized full life cycle governance provide the framework for the benefits realization process from the conception of projects to the harvesting of the benefits. Centralized governance also provides a process of progressive resource commitment in which resources are allocated to programs in small increments through stage gates. It stands to reason, then, that a centralized center of excellence would improve the management and coordination of strategic change initiatives.

Organizational Positioning Considerations

Understanding the business drivers behind establishing the PMO is of paramount importance. The motive behind establishing the center must be unambiguous, since it will serve as the foundation to establish the purpose, objectives, scope, and functions of the center. The desire to set up a PMO might have originated in IT, because of the number of strategic, mission-critical IT projects impacting the whole organization, or in a particular business area that is dependent on projects for success. Whatever the genesis, strive to place the center so that it serves the entire enterprise, not just IT or a particular business area. Consider Figure 3, a model to centralize a PMO integrating the project management, business analysis and quality assurance disciplines.

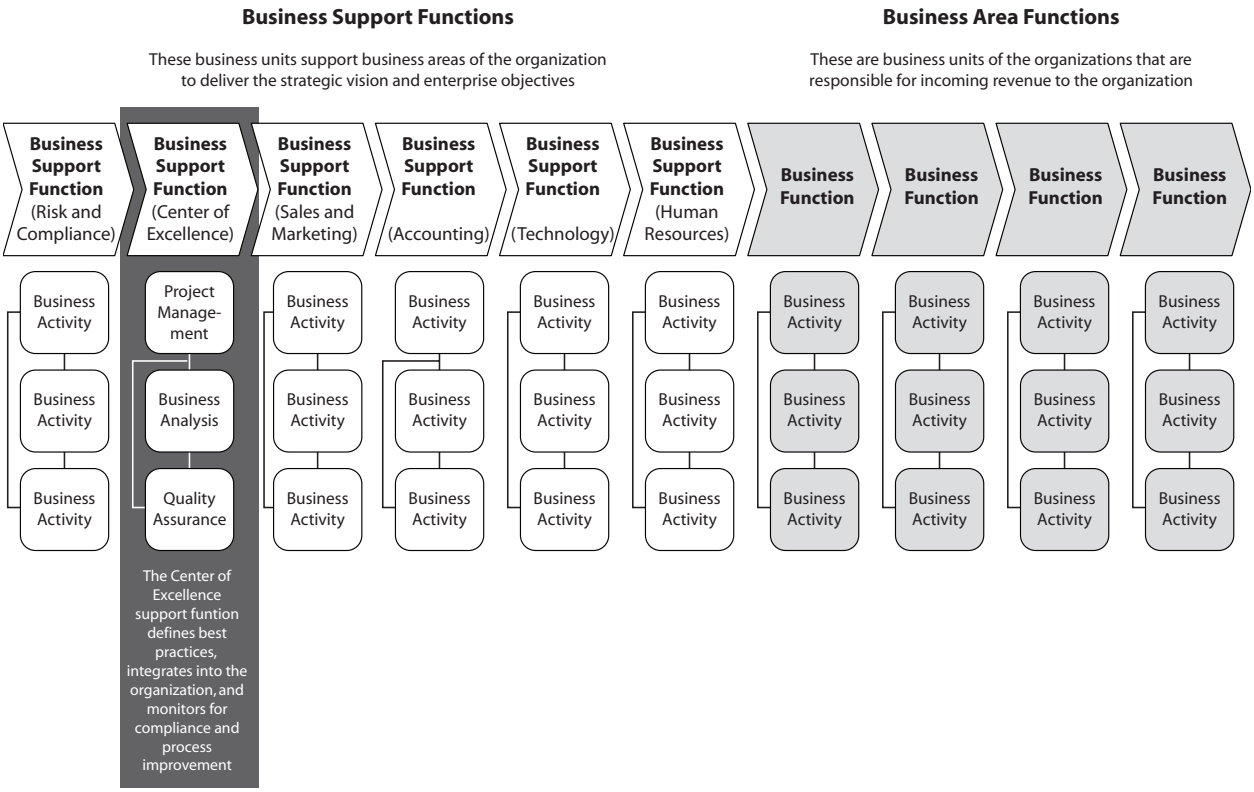

Figure 3: Organizational Integration for CoEs

One of the biggest challenges for the PMO is to bridge the gap that divides business and IT. To do so, the PMO must deliver multidimensional services to the diverse groups mentioned above. Regardless of

whether there is one CoE, or several more narrowly focused models, the CoE organization should be centralized. "Organizations with centralized CoEs have better consistency and coordination, leading directly to less duplication of effort. These organizations configure and develop their IT systems by business process or functional area rather than by business unit, leading to more efficient and more streamlined systems operations."[8] Best-in-class CoEs evaluate the impact of proposed changes on all areas of the business and effectively allocate resources and support services according to business priorities.

Positioning is equated with authority in organizational structures; the higher the placement, the more autonomy, authority and responsibility is likely to be bestowed on the center. Therefore, positioning the center at the highest level possible provides the "measure of autonomy necessary to extend the authority across the organization while substantiating the value and importance the function has in the eyes of executive management."[9] In the absence of high-level positioning, the success and impact of the center will likely be significantly diminished. Look upon the CoE as another shared services unit providing support across the enterprise, similar to HR, Accounting and IT.

Organizational Maturity and Implementation Considerations

Regardless of the CoE model, the performance of the center is somewhat dependent on the maturity of practices in the organization. The centralized model is important, as is the effectiveness of the strategic planning and project portfolio management practices, the business performance management processes and strategies, the maturity of IT architecture, development and support processes, and the strength of the business focus across the enterprise. Clearly, organizations with more mature practices achieve higher levels of value from their CoEs.

Organizations can absorb a limited amount of concurrent change while maintaining productivity levels at any given time. Therefore, a gradual approach to implementing the PMO is recommended. One option is to adopt a three-phased approach moving across the PMO maturity continuum from a project-focused structure to a strategic organizational model. Please refer to Figure 4 for a depiction of the PMO Maturity Model.

Project-Centric

PMOs are almost always project-centric in their early formative phase. The goals of the PMO at this stage are to build the confidence of and become an indispensable resource to the project teams. During this early phase, the PMO is building trusting relationships with business analysts, project managers, functional mangers, and project teams. In addition to developing project and program management practice standards, the PMO is providing services to the project managers and training and mentoring to develop high-performing project teams.

Department Focused

As the PMO begins to win confidence in multiple departments across the organization, it is likely that it will evolve into an enterprise-wide resource serving the entire company. At this point, the PMO begins

8 2006 USAG/SAP Best Practices Survey: Centers of Excellence: Optimize Your Business and IT Value. SAP America Inc. Published February 16, 2007. Retrieved from the Internet 28 March 2007. 12939_17599_21450_Centers_of_Excellence__Optimize_Your_Business_and_IT_Value_(2006_ASUG_SAP_Best_Practices_Survey)

9 Bolles, Dennis PMP. *Building Project Management Centers of Excellence.* New York, NY: American Management Association. 2002

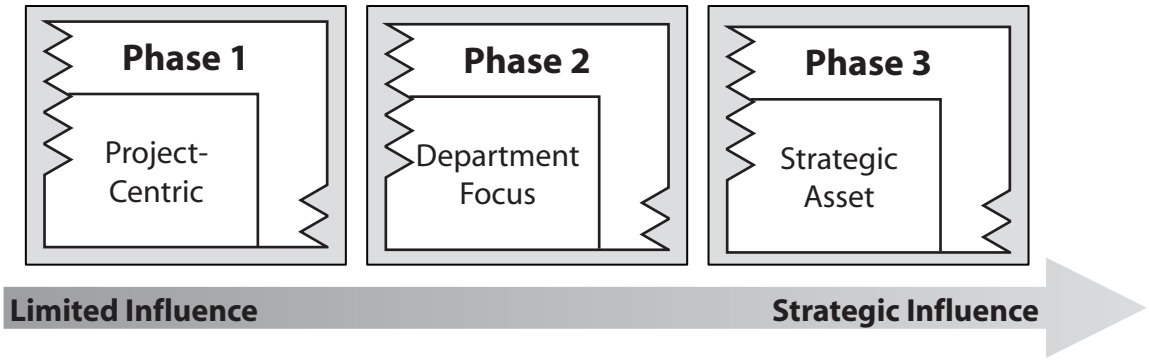

Figure 4: PMO Maturity Model

to facilitate the implementation of an effective portfolio management system. The PMO is building the foundation to serve as a strategic business asset providing management with decision support information.

Strategic

During the third stage of development, the PMO is considered a strategic asset serving both strategic programs and the executive team. At this point, it is well understood that project and program management has a positive effect on profitability and that organizations achieve strategic goals through well prioritized and executed projects. Emphasis at this stage is placed on achieving professionalism in project and program management through the PMO. Strategic activities for the PMO include:

- Conducting research and providing the executive team with accurate competitive information
- Identifying and recommending viable new business opportunities
- Preparing the project investment decision package to facilitate project selection and prioritization
- Managing expected business benefits during project execution and measuring actual business benefits after the new solution is deployed

Getting Started

Since there are many PMOs and other types of CoEs in existence today, best practices for developing organizational centers of excellence to manage the project and program management functions are emerging. Through a rationale and defined methodology, organizations are identifying the required knowledge, skills and abilities, assessing their current capabilities, and assembling a team to create the new entity. Based on the history of best practices for setting up various centers of excellence, there is a relatively standard process, including the steps listed below. Refer to Figure 5 for a depiction of the PMO Implementation Model.

1. Visioning and concept definition
2. Assessing the organizational knowledge, skills, maturity, and mastery of project and program management practices

3. Establishing implementation plans:
   - Draft the preliminary scope statement for the center in terms of disciplines, functions, processes, etc.
   - Develop a preliminary charter for the center
   - Prepare for the Kick-off Workshop
   - Conduct a Kick-off Workshop session to finalize the charter for the center and establish an implementation plan
4. Finalizing plans and creating action teams to develop and implement the infrastructure for the center

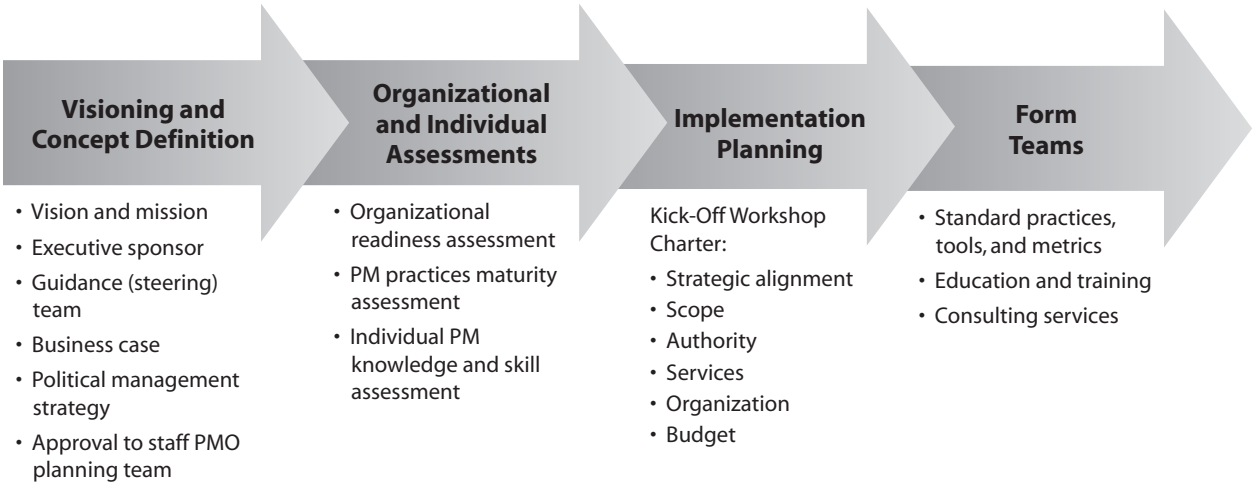

Figure 5: PMO Implementation Model

Step 1: Visioning and Concept Definition

Visioning

During the early study phase, it is important to create a vision for the new center. This is accomplished by examining the PMOs/CoEs that have already been implemented in organizations, studying their costs, benefits, strengths and weaknesses, and determining lessons learned. Create a preliminary vision and mission statement for the center, and develop the concept in enough detail to prepare a *business case* for establishing the center. Conduct interviews to vet the proposal with key stakeholders and secure approval to form a small core team to conduct the assessment of project management practices and plan for the implementation approach. Key stakeholders include:

- The executive you enlist to be the executive sponsor of the PMO
- Directors of existing offices in the organization
- The CIO and IT management team
- Executive directors and managers of key business units

Executive Sponsorship and Organizational Buy-In

During meetings with the key stakeholders, secure buy-in and support for the concept. Large-scale organizational change of this nature typically involves restructurings, cultural transformation, new technologies, and forging new partnerships. The ability to communicate and lead the change can well mean the difference between success and failure of the effort. Techniques to consider during the early study and planning phases include:[10]

- **Executive sponsorship.** A center of excellence cannot exist successfully without an executive sponsor. Build a trusting, collaborative relationship with the sponsor, seeking mentoring and coaching at every turn.
- **Political management strategy.** Conduct an analysis of key stakeholders to determine those who can influence the center, and whether they feel positively or negatively about the center. Identify the goals of the key stakeholders. Assess the political environment. Define problems, solutions, and action plans to take advantage of positive influences, and to neutralize negative ones.
- **A sense of urgency.** Work with stakeholder groups to reduce complacency, fear, and anger over the change, and to increase their sense of urgency.
- **The guiding team.** Build a team of supporters who have the credibility, skills, connections, reputations, and formal authority to provide the necessary leadership to help shape the PMO.
- **The vision.** Use the guiding team to develop a clear, simple, compelling vision for the PMO, and set of strategies to achieve the vision.
- **Communication for buy-in.** Execute a simple, straight-forward communication plan using forceful and convincing messages sent through many channels. Use the guiding team to promote the vision whenever possible.
- **Empowerment for action.** Use the guiding team to remove barriers to change, including disempowering management styles, antiquated business processes, and inadequate information.
- **Short-term wins.** Wins create enthusiasm and momentum. Plan the implementation to achieve early successes.
- **Dependency management.** The success of the center is likely dependent on coordination with other groups in the organization. Assign someone from your core team as the *dependency owner*, to liaise with each dependent group. A best practice is for dependency owners to attend team meetings of the dependent group, so as to demonstrate the importance of the relationship and to solicit feedback and recommendations for improvements.

Step 2: Organizational and Individual Assessments

Organizational Readiness Assessment

The purpose of the organizational readiness assessment is to determine organizational expectations for the center and to gauge the cultural readiness for the change. The assessment team determines where the

10 Kotter, John P. (2002) *Getting to the Heart of How to Make Change Happen*. Boston, MA: Harvard Business School Press

organization is on the continuum from a stovepipe, function-centric structure, to an enterprise-focused organization. Additionally, it is useful to gather information about best practices that are already in place in the organization that might serve as a springboard for replication across projects. The assessment also provides the PMO planning team with information on key challenges, gaps and issues that should be addressed immediately. The ideal assessment solution is to conduct a formal organizational maturity assessment. However, a less formal assessment may suffice at this point.

Informal Assessments

As soon as the concept has been approved and the implementation team is in place, conduct an assessment to understand and document the current state of project management practices. The assessment consists of interviews with functional managers, lead engineers, business analysts, project managers, and IT professionals. The goal of the assessment is to determine organizational readiness to accept the center, and the current state of:

- **Project managers** – the individuals currently involved in major projects, including their:
  - Knowledge, skills, and experience
  - Roles and responsibilities
  - Organizational placement
  - Other duties assigned
  - Existence of a career path, position descriptions, competency model
  - Training and professional development opportunities
  - Measures of success and performance evaluation
- **Project management practices** – formal and informal methodologies and techniques used, including:
  - Feasibility study process
  - Business case development process
  - Project initiation, planning, executing, monitoring, controlling, and closeout processes
  - Business architecture development standards or framework
  - Requirements elicitation, analysis, specification, validation, and change management process
  - Requirements prioritization and traceability
  - Quality assurance
  - Requirements verification (user acceptance test) methods
  - Tools, templates, guidelines
- **Technology** – project, document and requirements management tools:
  - Powerful modeling tools
  - Requirements repository and management system
  - Team collaboration tools
- **Governance** – oversight for project selection, prioritization, and ongoing review:
  - Review and approval of project management and business analysis practices
  - QA function to ensure compliance to standards
  - Portfolio management team to select and prioritize projects
  - Benefits management process throughout the project and after solution delivery

Formal Organizational Maturity Assessment

We recommend conducting an assessment that not only determines the state of project management, but also the state of business analysis and systems and software engineering practices to secure a complete

picture of program and project maturity. The *CompassBA/PM™ Capability Maturity Model* and assessment process developed by Management Concepts is an adaptation of the recognized best-practice model for software projects, the Carnegie Mellon Software Engineering Institute Capability Maturity Model (SEI CMMI®). CompassBA/PM™ adheres to the proven concepts for effective change that have demonstrated success for over a decade in the SEI CMMI®, focusing those aspects on improving both project management and business analysis, thus ensuring compatibility and alignment with the de facto standards available in the information technology (IT) project improvement arena.

CompassBA/PM™ CMM is mapped to industry standards by establishing specific business analysis, project management, and systems and software engineering practice goals to be achieved to reach advanced levels of the model. Refer to Figure 6 for a graphical depiction of the CompassBA/PM™ CMM. The power of the Management Concepts CompassBA/PM™ CMM comes from the integration of:

- The project management knowledge areas described in the Project Management Institute (PMI) *A Guide to the Project Management Body of Knowledge (PMBOK™ Guide)*, Third Edition, defined by its knowledge requirements and outlined in terms of its component processes, practices, inputs, outputs, tools and techniques
- The key practices embodied in the International Institute of Business Analysis (IIBA) *Business Analysis Body of Knowledge (BABOK™ Guide)* described in terms of key practices and techniques
- The *SEI Capability Maturity Model® Integration (CMMI)* selected process areas that represent a group of best practices that, when performed collectively, satisfy a set of goals considered important for making significant improvement in that area for software and system engineering are included in the model

Individual Knowledge and Skill Assessments

It is also important to determine the skill level of existing project managers. *The CompassBA/PM – Individual™* assessment process developed by Management Concepts is a formal capabilities assessment of your business analysts and project mangers. The assessment results provide the basis for determining training requirements, professional development activities, and specific mentoring and coaching needs. As with the organizational assessment, the individual assessment benchmarks an individual business analyst or project manager against the industry standards, the *PMBOK™ Guide* and the *BABOK™ Guide*.

Step 3: Implementation Planning

The Kick-Off Workshop serves as the capstone event officially launching the PMO. All key stakeholders should be in attendance to participate in the decision making. Major areas of resistance to the establishment of the center should have been resolved prior to the kick-off during Step 1. In preparation for the workshop, develop a preliminary charter and business plan for the center that describes its key elements. Secure buy-in from influential stakeholders prior to presenting the documents at the kick-off workshop. Conduct a Kick-Off Workshop session to finalize the charter and plans, and gain consensus on an implementation approach. Refer to Table 1 for a detailed list of planning considerations.

Planning Considerations	Description
Strategic Alignment, Vision and Mission	Present the case for the PMO and reference the business case for more detailed information about cost versus benefits of the center.
Assessment Results	Include or reference the results of the assessments that were conducted: • Maturity of the project management practices • Summary of the skill assessments • Recommendations, including training and professional development and improvement of practice standards
Scope	Describe the scope of responsibilities of the PMO, including: • The professional disciplines guided by the center, (i.e., just PM, PM, BA, just PM SE?) • The functions the center will perform • The processes the center will standardize, monitor and continuously improve • The metrics that will be tracked to determine the success of the center
Authority	PMOs can be purely advisory, or they can have the authority to own and direct business processes. In practice, centers typically are advisory in some areas, and decision-makers in others. Remember, the organizational placement should be commensurate upon the authority and role of the center. When describing the authority of the PMO, include the governance structure, i.e., who or what group the PMO will report to for guidance and approval of activities.
Services	A PMO is almost always a resource center, developing and maintaining information on best practices and lessons learned, and often providing resources to projects. Document the proposed role: • Materials to be provided, e.g., reference articles, templates, job aids, tools, procedures, methods, practices • Services, e.g., business case development, portfolio management team support, consulting, mentoring, standards development, quality reviews, workshop facilitators, and providing business analyst and project managers to project teams
Organization	Describe the PMO team structure, management, and operations including: • Positions and their roles, responsibilities, and knowledge and skill requirements • Reporting relationships • Linkages to other organizational entities
Budget and Staffing Levels	At a high level, describe the proposed budget, including facilities, tools and technology, and staffing ramp up plans.
Implementation Approach	Document formation of initial action teams to begin to build the foundational elements of the PMO. In addition, describe the organizational placement of the PMO, and the focus initially: (i.e., project centric, department focus, or strategic focus).

Table 1: Planning Considerations

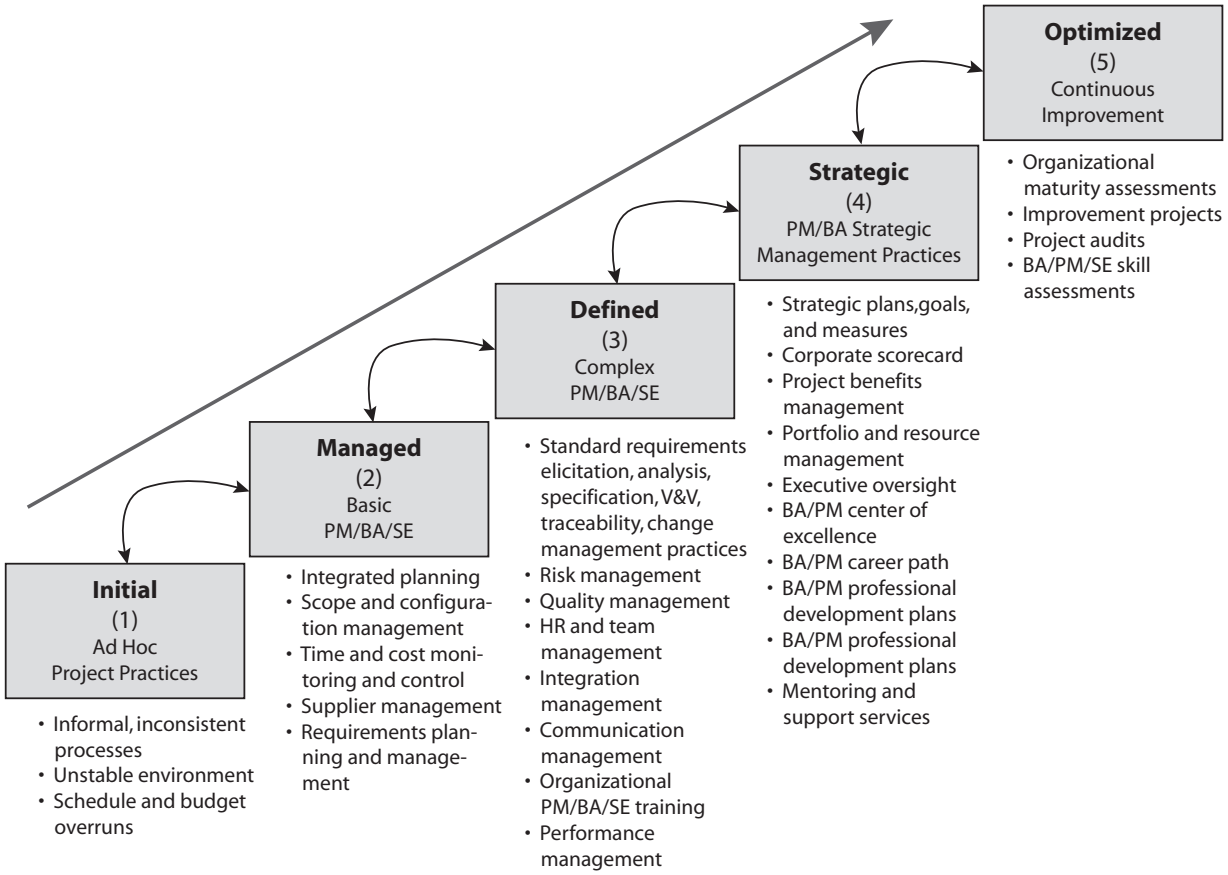

Figure 6: CompassBA/PM™ CMM

Step 4: Finalize Implementation Planning and Form Teams

After the workshop session, finalize the PMO Charter, and staff the center. Form action teams to develop practice standards, provide for education, training, mentoring and consulting support, and secure the needed facilities, tools, and supplies. Refer to Figure 7 for a typical PMO organization. Develop the PMO *Business Plan/Operations Guide*, describing implementation strategy, phases, deliverables, and milestones; detailed budget including salaries, training, technology, consulting services; infrastructure requirements, acquisition and installation; organization formation and initial orientation and training; and communications and risk management plans.

Final Words

Establish a PMO That Executives Love and Project Teams Trust

Establishing PMOs is difficult, because it destabilizes the sense of balance and power within the organization. Executives are required to make decisions based on benefits to the enterprise versus their specific area. Managers are often afraid of losing their authority and control over the resources assigned to them. In addition, staff members may be unclear about their roles and responsibilities, and how they will be given assignments. These ambiguities almost always manifest themselves as resistance to change, and pose

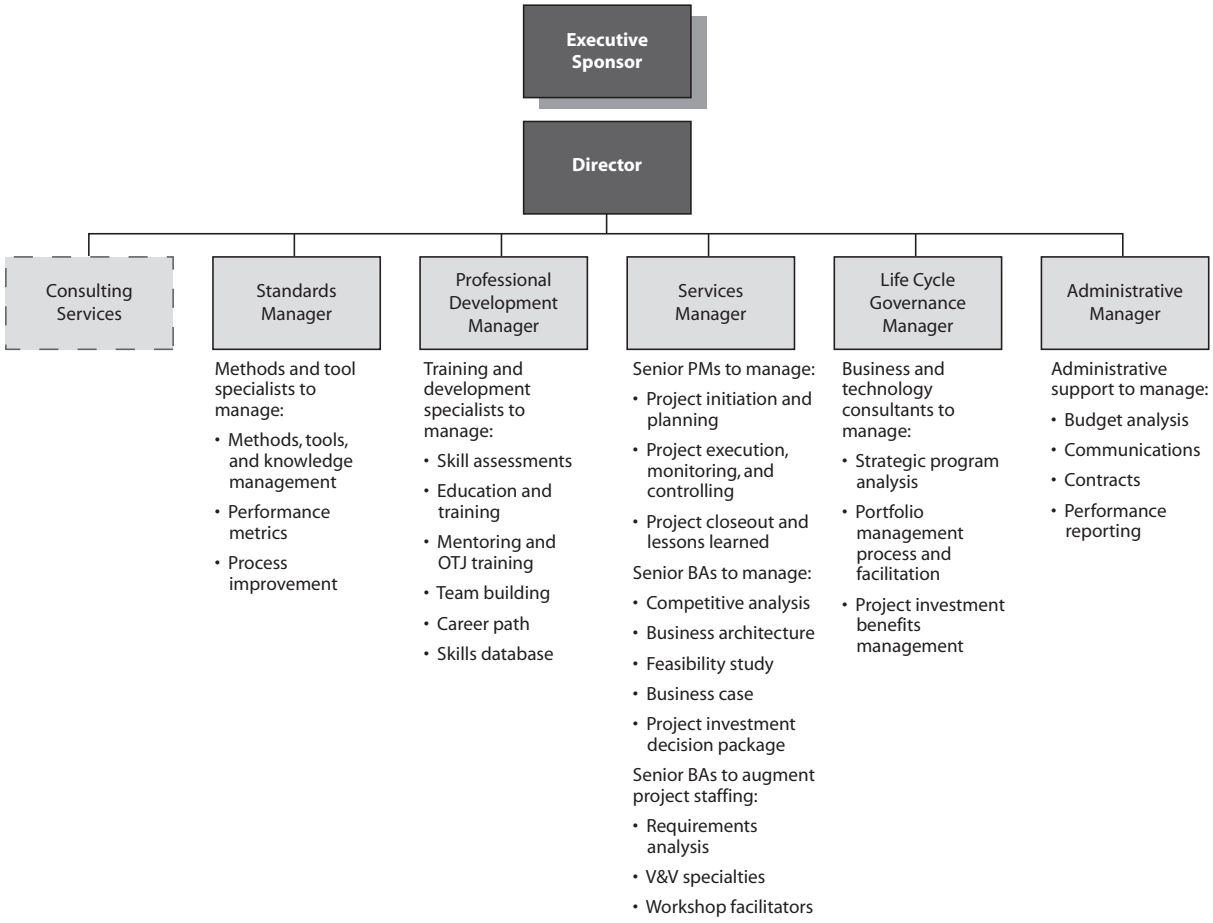

Figure 7: Typical PMO Organization

a risk to a successful implementation. Therefore, it is imperative that robust visioning, coordination, involvement, and communication about how the center will affect roles and responsibilities accompany the implementation of the center. Do not underestimate the cultural challenges that you will encounter; on the contrary, expect and manage them. Pay close attention to organizational change management strategies recommended in Step 1, and use them liberally. To stand up a PMO that executives love and project teams trust, make the center indispensable. Provide high-quality services and support to executives, management, and project teams rather than imposing requirements and constraints. Conduct the operations of the PMO and design project management and business analysis practices using lean techniques. Follow the motto: *barely sufficient is enough to move on*.

Pitfalls – Avoid at All Costs

In spite of enormous effort on the part of very well-intentioned PMO staff members, PMOs have are failing all around us. "Many PMOs are no longer in existence, have stagnated in their evolution or have woefully under-performed against their original objectives… It has become so bad at some organizations that no one dares utter the letters P-M-O. Many organizations are attempting to reconstitute their PMOs

and had to invent new names for their entities so as not to be immediately ostracized."[11] There are several reasons PMOs fail, such as:[12]

- Not seen as a strategic asset
- Did not define and demonstrate its value
- Is not perceived as impacting project execution and delivery
- Is seen as a threat – too authoritative
- Is positioned too low in the organization structure
- Does not have buy-in from senior management
- Is seen as a cost
- Is micromanaging – trying to control every project

And lastly, PMO implementation pitfalls – avoid at all costs:

- Lack of focus and too many responsibilities
- Relegation to clerical role
- Too much time developing process/tools
- Not seen as adding value
- Not considered a valuable project team resource
- Viewed as *project management police*
- Continually imposing new requirements on project managers

Demonstrate Value to the Organization

To establish a PMO to last, it must be able to demonstrate the value the center brings to the organization. Develop measures of success and report progress to executives to demonstrate the value added to the organization because of the center. Typical measures of success include:

- **Project Cost Overrun Reduction.** Quantify the project time and cost overruns prior to the implementation of the PMO, and for those projects that are supported by the PMO. If a baseline measurement is not available in your organization, use industry standard benchmarks as a comparison. Other measures might be improvements to team member morale and reduction in project staff turnover.

- **Project Time and Cost Savings.** Track the number of requirements defects discovered during testing and after the solution is in production prior to the implementation of the PMO, and for those projects that are supported by the PMO. Quantify the value in terms of reduced re-work costs and improved customer satisfaction.

- **Project Portfolio Value.** Prepare reports for the executive team that provide the investment costs and expected value of the portfolio of projects; report actual value the new solutions add to the organization as compared to the expected value predicted in the business case. When calculating cost, be sure to use the total cost of ownership, including the cost to build or buy the systems, deploy the new solution, and operate it in both the business and technical environments.

11 Daniel Tousignant, Thomas Reddington, *Why PMOs Fail (and How to Make Yours Succeed!)*

12 Gerald I. Kendall and Steven C. Rollins, *Advanced Project Portfolio Management and the PMO*, J. Ross Publishing, 2003

- **Benefits Management.** Maximize the business value of every project. Implement methods for assuring that every project is linked to the business/mission strategies. Ensure that new solutions provide clear and measurable business/mission impact

Great Teams...You Need One

When staffing the PMO, establish a small but mighty *core team* dedicated full-time to the center, co-located, highly trained, and multi-skilled. Do not over staff the center, as the cost will appear to be prohibitive. Augment the core team's efforts by bringing in subject matter experts and forming sub-teams as needed. Select team members not only because of their knowledge and skills, but also because they are passionate and love to work in a challenging, collaborative environment. Develop and use a team operating agreement. Develop team-leadership skills and dedicate efforts to transitioning the new PMO group into a high-performing team with common values, beliefs, and a cultural foundation upon which to flourish.

Start Small

Before embarking on sophisticated project management practices, focus on getting the basics right. The first step is to stabilize performance by institutionalizing the management basics.[13] For the PMO, the first goal is to support projects to perform well on the project management basics, including:

- Project planning and tracking
- Estimation (of resources: time, staff, budget)
- Requirements scope management
- Risk identification (and basic analysis for risk tolerance)
- Schedule management (and basic conflict resolution)
- Budget and cost management
- Basic progress reporting for the range of projects coordinated by the PMO

Transition to More Complex Projects

For larger, more complex projects, begin to implement more sophisticated practices, e.g., earned-value analysis and activity-based costing.[14] Schedule management across the organization enables PMOs to identify schedule and staff conflicts early, before they lead to critical-path impacts and ultimately schedule slippages that might result in business delays. Estimates of size, effort, schedule, and cost become more variable as the project size and duration increase. These increases on large projects routinely lead to increasing risks and lower potential for on-time, on-budget efforts. Therefore, the need to identify risks early becomes increasingly important. At this point, the PMO should identify, analyze, and track risks from the project delivery standpoint.

Apply Complexity Thinking to Manage the Path to PMO Maturity

The Project Complexity Model presented here (see Figure 8) is used to evaluate project size, complexity, and risk and determine the specific dimensions of complexity that are present on a project. The project

13 Donn Di Nunno CCP, CDP, *Program Management Office (PMO) Basics*, Engineering, Management, and Integration, Inc. 2007

14 Ibid.

complexity model describes the characteristics for projects that are (1) small, independent, and low risk; (2) medium-sized with moderate complexity and risk; and (3) large, with high complexity and risk. Assume a leadership or support role for the new PMO for small, low-risks projects first; then transition slowly up the complexity model as the PMO gains credibility, momentum and approval. Focus the PMO resources primarily on projects that are critical to mission success.

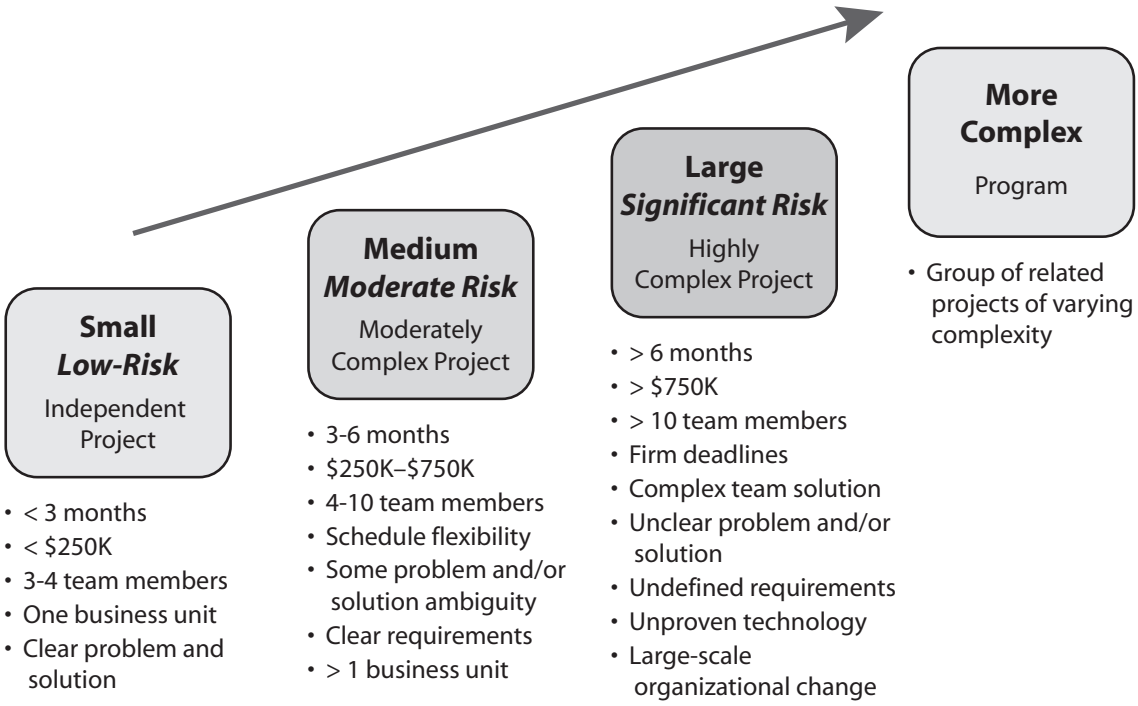

Figure 8: Project Complexity Model

Focus on Best Practices, Coordination, and Communication

It should be remembered that PMOs are about discipline and best practices used to manage resources, risk, and spending. Needless to say, imposing discipline makes resistance to PMOs a natural consequence. Project managers applaud their increased control, but loathe the accountability. Lines of business delight in the visibility into project progress, but scoff at the added level of communication needed to get things done. Executives like the deliberate assignment of responsibilities, but balk at the investment necessary to support a central resource for this purpose.

A common misconception about PMOs is that they are designed to enable IT organizations to carry out larger projects. While PMOs bring economies of scale that support larger projects, they also embrace risk management, a key tenet of which is to control project size to reduce risk. Notice, that in the Project Complexity Model in Figure 8, anything over six months in duration and $750,000 in cost is considered large, complex and high risk.[15]

15 Donn Di Nunno CCP, CDP, *Program Management Office (PMO) Basics*, Engineering, Management, and Integration, Inc. 2007

