Chapter One

PROJECT MANAGEMENT OVERVIEW

Project management itself is not a new concept. It has been practiced for hundreds, even thousands of years. Any large undertaking requires a set of objectives, a plan (and continuous planning), coordination, the management of resources, and the ability to manage change. Today, the project management approach has become more formal and many organizations have adopted a "management by projects" approach. Some organizations have established project management offices or PMOs to assist them in developing standards for managing projects. As the project management discipline evolves, organizations around the world are experiencing the benefits of project management. These benefits include better scheduling of resources, improved estimating, higher levels of quality, early identification of issues and problems, and more effective measurement processes to assess success.

Projects are defined as temporary, they have a start and an end date, and they provide a unique product or service. Project management is the application of knowledge skills, tools, and techniques to project activities to meet project objectives. Effective project management is accomplished through the application and integration of project management processes that will assist in the initiation, planning, execution, monitoring, controlling, and closing of a project and each phase of a project. A project manager is assigned to a project and becomes accountable for the success of the project through effective management techniques, coordination between functional organizations, and the ability to apply the appropriate amount of managerial and cross-organizational support and guidance as the project is executed.

Glossary of terms Key terms and definitions to review and remember

Deliverable A tangible, verifiable work output.

Functional Manager Generally, the manager who owns the resources that will be assigned to project activities. Functional managers are considered to be the technical experts and usually provide information about task duration and cost estimates. Project managers engage the assistance of functional managers (also known as line managers) to develop the project plan.

Non-Project Driven Generally, these organizations do not have a project methodology in place and are arranged in a functional organizational structure. Work is associated with manufacturing and production lines. Projects are established as needed to improve or support functional lines and activities.

Project A temporary endeavor undertaken to create a unique product, service, or result. Has a specific objective, defined start and end dates, funding limitations, consumes resources (human, equipment, materials) and is generally multifunctional or cross-organizational in nature.

Project Driven Organization Also known as "project based." In these organizations all work is characterized through projects. Projects are arranged as separate cost centers and the sum of all project work is associated with organizational goals and strategic objectives.

Project Management Application of knowledge skills, tools, and techniques to project activities to meet project requirements. Involves initiation, project planning, executing, monitoring, controlling, and closing of project phases and the total project.

Project Sponsor The person or organization that authorizes the project and provides the financial resources.

Triple Constraint A framework for evaluating competing project demands of Time (schedule), Cost (budget), and Scope (specifications) usually depicted as a triangle. Quality is commonly used in place of, or in addition to, Scope.

Activities, Questions, and Exercises

Refer to Chapter One of *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* (10th Edition) for supporting information. Review each of the following questions or exercises and provide the answers in the space provided.

Dr. Kerzner's 16 Points to Project Management Maturity.

1. Adopt a project management methodology and use it consistently
2. Implement a philosophy that drives the company toward project management maturity and communicate it to everyone
3. Commit to developing effective plans at the beginning of each project
4. Minimize scope changes by committing to realistic objectives
5. Recognize that cost and schedule management are inseparable
6. Select the right person as the project manager
7. Provide executives with project sponsor information, not project management information
8. Strengthen involvement and support of line management
9. Focus on deliverables rather than resources
10. Cultivate effective communications, cooperation, and trust to achieve rapid project management maturity
11. Share recognition for project success with the entire project team and line management

12. Eliminate nonproductive meetings

13. Focus on identifying and solving problems early, quickly, and cost effectively

14. Measure progress periodically

15. Use project management software as a tool – not as a substitute for effective planning or interpersonal skills

16. Institute an all-employee training program with periodic updates based upon documented lessons learned

This exercise is intended to provide you with a basis and understanding of the major goals of an enterprisewide project management methodology and process for improvement. The 16 Points to Project Management Maturity are designed to assist an organization in achieving continuously higher levels of project performance by providing a baseline for assessing the current level of project management maturity and then developing steps to enhance existing processes and/or create new processes that will improve overall project performance.

Exercise: Review Dr. Kerzner's 16 points to project management maturity and identify the specific benefits associated with each point. Identify actions that may be taken to introduce, implement or further enhance the value of each of the listed points in an organization. .

Example:

1. Adopt a project management methodology and use it consistently.

Action: Provide management with supporting information about how project management can assist in achieving organizational objectives. Obtain best practices documentation from companies that are actively using project management processes and methodologies and provide a summary to executive management.

2. Implement a philosophy that drives the company toward project management maturity and communicate it to everyone.

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3. Commit to developing effective plans at the beginning of each project.

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4. Minimize scope changes by committing to realistic objectives.

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5. Recognize that cost and schedule management are inseparable.

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6. Select the right person as the project manager.

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7. Provide executives with project sponsor information, not project management information.

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8. Strengthen involvement and support of the line management.

9. Focus on deliverables rather than resources.

10. Cultivate effective communications, cooperation, and trust to achieve rapid project management authority.

11. Share recognition for project success with the entire project team and line management.

12. Eliminate nonproductive meetings.

13. Focus on identifying and solving problems early, quickly, and cost effectively.

14. Measure progress periodically.

15. Use project management software as a tool—not as a substitute for effective planning or interpersonal skills.

16. Institute an all-employee training program with periodic updates based upon documented lessons learned.

2. Describe how project management may benefit an organization, impact organizational success, and assist in the achievement of strategic objectives.

3. What are the three key factors that are commonly used to indicate project success?

1. _____

2. _____

3. _____

4. What additional success factors could be considered to more effectively indicate successful completion of a project?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5. In many organizations the organizational structure itself may create management gaps, functional gaps, and operational islands that developed over time. These gaps may result in miscommunications and lower productivity. Describe some of the causes of these gaps and how the gaps can be effectively minimized.

_____

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_____

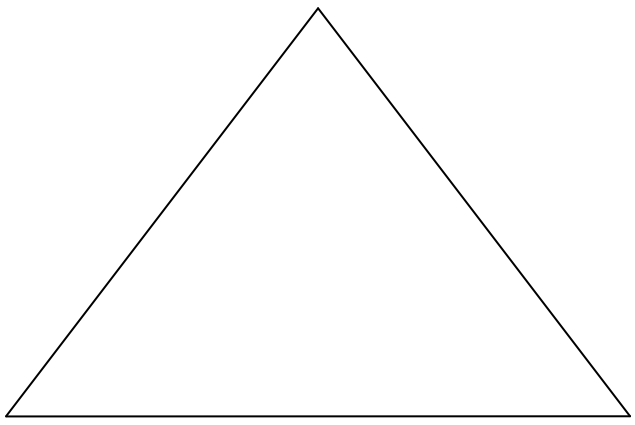
6. Describe the term *stakeholder* and provide examples of the stakeholders associated with projects you are engaged in.

_____

_____

_____

7. This diagram is commonly used to illustrate the relationship of the key elements of project success. Correctly label each side of the diagram (Figure 1-2).



8. This diagram is referred to by project managers and other stakeholders as the _____.

What is the significance of the diagram as it relates to the competing demands of a project?

_____

_____

_____

9. Referring to Figure 1-2, describe at least three additional factors that may influence a customer's perception of project success.

_____

_____

_____

10. Explain why establishing a good daily working relationship with functional managers and/or line managers is important to project success and is a critical responsibility of the project manager.

_____

_____

_____

11. Explain the term *integration* as it relates to project management and describe the major roles and responsibilities of the project manager.

_____

_____

_____

12. Define the roles of the functional manager and describe at least three challenges that a functional manager may encounter in an organization that engages in the management of multiple projects.

_____

_____

_____

13. How can a project manager ensure that he or she establishes and maintains an effective and collaborative relationship with the project sponsor or project executive?

_____

_____

_____

14. Causes and effects. Although all projects are unique, there are many common issues that are experienced by project managers and teams. Referring to the list of causes and effects, match two causes (only 2) to each effect and explain why the two were chosen.

Causes:

a) Top management does not recognize the activity as a project
b) Too many projects going on at the same time

c) Impossible schedule commitments
d) No functional input into the planning phase
e) No one person responsible for the total project
f) Poor control of design changes
g) Poor control of customer changes
h) Poor understanding of the project manager's job
i) Wrong person assigned as project manager
j) No integrated planning and control
k) Company resources are overcommitted
l) Unrealistic planning and scheduling
m) No project cost accounting ability
n) Conflicting project priorities
o) Poorly organized project office

Effect		**Explanation**
1. Late completion of activities	Cause #1	
	Cause #2	
2. Cost overruns	Cause #1	
	Cause #2	
3. Substandard performance	Cause #1	
	Cause #2	
4. High turnover in project staff	Cause #1	
	Cause #2	
5. High turnover in functional staff	Cause #1	

Effect		Explanation
	Cause #2	
6. Two functional departments performing the same activities on one project	Cause #1	
	Cause #2	

15. Describe the major roles and responsibilities of the project manager:

16. Project managers are often challenged to influence functional managers who may have multiple projects to deal with and may be forced to compete with other project managers in the same organization for resources. Explain how the project manager can improve relationships with functional managers and influence them to provide the necessary resources to achieve the project manager's objectives.

17. The relationship between the project manager and the project sponsor or executive is a critical factor and can mean the difference between project success and failure. What actions can be taken by the project manager to ensure that a strong and supportive relationship exists between the project manager and the project sponsor?

18. According to the *PMBOK® Guide*—Fourth edition, a project is defined as:

19. The 42 project management processes described in the *PMBOK® Guide*—Fourth edition comprise the 5 major process groups. The 5 major process groups are:

20. In addition to the three elements of the triple constraint – Time, Cost, and Scope, what additional competing constraints may be encountered during project planning and execution?

Kerzner "Quick tips" for the Project Management Institute PMP® and CAPM® EXAM

The information in Chapter One is most closely related to the following topics in the *PMBOK® Guide*: THE PROJECT MANAGEMENT FRAMEWORK, PROJECT MANAGEMENT KNOWLEDGE AREAS—PROJECT INTEGRATION MANAGEMENT

An important item to remember is the Project Management Framework, as described in the *PMBOK® Guide*, which defines a total of 42 project processes that describe the activities generally found throughout

a project's life cycle. These processes are organized into nine knowledge areas and represent five process groups: Initiating, Planning, Executing, Monitoring, and Closing.

The 9 knowledge areas of Project Management are: ***Integration management, Scope management, Time management, Cost management, Risk management, Human Resources management, Quality management, Procurement management, and Communication management.*** These knowledge areas and the subprocesses associated with them are connected through the "system" of project management and are all *Integrated, Interrelated,* and *Interdependent.* There are no independent components of the total project and all knowledge areas within the *PMBOK® Guide* may, in some way, impact any of the other knowledge areas. They are part of the total system of project management.

Important terms to remember

Change Control Board A team or group designated or empowered to review and determine the value of a change and to approve or deny change requests.

Close Project Utilizing the project management methodology, Project Management Information System, and expert judgment to complete the project and perform all final administrative procedures. The processes required to obtain formal acceptance and completion of project files for historical information.

Configuration Management Process that will ensure that configuration changes (changes to features, functions, dimensions) are managed and approved to prevent or reduce the risks of additional cost, scope changes, or other impacts to the project.

Constraints and Assumptions What are the limitations or boundaries you must operate within? What assumptions can be made about the project you have been assigned to manage? Assumptions in this context are items we can believe to be true, real, or certain.

Enterprise Environmental Factors Items such as the organizational culture, industry standards that are in place, personnel administration guidelines, databases, and existing infrastructure.

Historical Records Learn from past projects. Use lessons learned and experience. Also associated with professional and social responsibility.

Integrated Change Control The 9 knowledge areas are managed in an integrated manner with an understanding that a change in one area can impact any or all of the other knowledge areas. Consider the impact of the change before implementing the change. Determine that a change has occurred through comparison of the baseline with actual results. Determine when to make a change and how to introduce the change to minimize the impact on ongoing operations.

Monitor and Control Project Work Processes for managing work performance, managing change requests, utilization of earned value techniques, identifying corrective and preventive actions.

Organizational Process Assets Standard policies such as safety, quality assurance, health, available planning templates, financial controls, change control procedures, and risk management processes.

Organizational Strategies Consider the goals and objectives of your organization and how your project impacts or supports them. Make sure you can link your project to the organizational goals.

Preliminary Project Scope Statement Describes the project and the desired objectives. The preliminary scope statement includes the definition of the project, the products and services to be delivered, major milestones, and acceptance criteria.

Project Charter Authorizes the project and the use of resources. Assignment of the project manager is also included in a project charter.

Project Management Information System Any system or group of systems working together to gather, store, and distribute information about your project. Examples: Time-reporting system, Accounting System, Project Software.

Project Management Plan All of the actions necessary to integrate and coordinate the entire project effort including any subsidiary plans that have been established by the project team.

Project Plan The approved document that provides the baseline for executing and managing the project.

SMART Objectives – Specific, Measurable, Attainable, Realistic, Time bound

Stakeholders Consider who the key stakeholders are and also other stakeholders who may view your project as a threat or an obstacle to their projects. Determine who the negative stakeholders are and what risks they may introduce to the successful completion of your project.

Subsidiary Plans Plans created to support the higher-level project plan. An example of a subsidiary plan is the Change Control Plan—the control processes in place to manage other knowledge areas such as Scope Change Control, Schedule Change Control, Cost Change Control, etc. The total or *integrated project plan* may include several subsidiary plans depending on the complexity of the project.

Integrated planning includes many processes, so be prepared to answer questions that may include several different processes related to a project situation. Become familiar with all process groups, and make sure you know the inputs, tools, techniques, and outputs of each process.

PMI® heavily emphasizes the importance of planning. Proper planning requires effective communication among the team and sound leadership from the project manager. The result is a project team that is more completely informed and has an understanding of the larger, integrated view of the project.

Additional tips and practice items for the PMP® exam are included in each chapter and in the section of the workbook entitled ***PMP® Exam and PMBOK Guide® Review.***

Answers to Questions and Exercises

1. 16 Points

1. Provide management with supporting information about how project management can assist in achieving organizational objectives. Obtain best practices documentation from companies that are actively using project management processes and methodologies and provide a summary to executive management.

2. Identify and communicate the benefits of project management.

3. Establish a project kickoff process and project-planning methodology.

4. Set objectives clearly using SMART criteria.

5. Establish a performance measurement system using earned value management.

6. Establish guidelines and criteria for selection of a project manager. Emphasize soft skills as well as managerial skills.

7. Establish expectations with executives at project start-up.

8. Communicate project sponsor support and executive support to the team. Understand line manager priorities. Create a positive working relationship.

9. Prepare and communicate acceptance criteria. Communicate the scope statement.

10. Obtain sponsor and executive support, establish clear objectives, develop a communications plan.

11. Reward and recognize project teams, develop team building activities.

12. Create meeting guidelines. Meet only when necessary. Define the meeting purpose, create an agenda, and manage time effectively.

13. Develop a risk management plan and a process for managing issues.

14. Use earned value management and establish success metrics. Conduct reviews after each project phase.

15. Identify a software application that will be accepted and used by project managers. Provide the appropriate training.

16. Establish a Project Management Office, require documentation of lessons learned, and ensure that management support is visible.

2. Control of changes, consistent approach, improve quality, reduces risk, improves estimating ability.

3. On schedule, within budget, within performance specifications (and quality requirements).

4. Customer satisfaction. Add on business, employee satisfaction, no disruption of operations, minimal changes to the scope of work, executive management recognition of the project team, minimal conflicts among team members and organization units, fully operational and accepted product or service deliverables.

5. Functional units may develop their own culture, management hierarchy may affect the ability to communicate, protection of area of responsibility (turfism), competition among managers, different priorities, unclear organizational objectives, failure to communicate strategic goals, inappropriate organizational structure, organizational culture, business unit culture.

6. Anyone directly involved in the project or in some way affected either positively or negatively as a result of the project. Stakeholders generally include the project manager, project team, project sponsor, and project customer and may include many others.

7. Schedule, Cost, Scope (can also be quality or performance specifications).

8. The triple constraint. Any change to one side of the triangle may affect the other sides.

9. Quality, availability of the project manager, timeliness of status reporting, reliability of the product or service deliverable, safety, minimum or mutually agreed upon scope changes, no impact or interruption to the work flow of the organization.

10. The project manager depends on the functional managers to provide the appropriate resources and to ensure that the work is performed correctly. A good relationship will minimize conflict and increase the likelihood of functional manager willingness to work on future projects with the project manager.

11. All project components and planning processes are interrelated. The project manager must coordinate and integrate project activities across organizational boundaries. The project manager ensures that functional units communicate effectively.

12. The functional manager provides the resources and technical expertise. Challenges include: different priorities among project managers and projects, managing the demands of multiple project managers, limited resources, unreasonable time frames, internal politics.

13. Establish expectations at the start of the project. Include communications requirements, escalation procedures, planning processes and methodology, and clear objectives.

14. There are many possible answers and solutions to the causes. This exercise is intended to emphasize the importance of identifying potential project problems and encourage proactive thinking and action.

15. The project manager is considered and integrator and coordinator for all major project activities. The project manager is held accountable for successful completion of the project. The project manager is a liaison between the project team and the project sponsor or executive steering committee. Other roles include – team builder, conflict manager, coach, mentor, facilitator, leader, motivator.

16. The project manager can develop better relationships with the functional managers through listening and understanding the priorities of the functional managers, their work environment, and issues associated with the functional manager's position.

17. Establish expectations clearly and intentionally between the project manager and the project sponsor or executive.

18. A project is a temporary endeavor undertaken to create a unique product, service, or result.

19. Initiating, Planning, Executing, Monitoring and Controlling, and Closing

20. Quality, resources, risk etc.

Your Personal Learning Library

Write down your thoughts, ideas, and observations about the material in the chapter that may assist you with your learning experience. Create action items and additional study plans to assist you in enhancing your skills or for preparing to take the PMP® or CAPM® exam.

Insights, key learning points, personal recommendations for additional study, areas for review, application to your work environment, items for further discussion with associates.

Personal Action Items:	
Action Item	**Target Date for Completion**