Project Management Professional (PMP)

Section (1) Introduction



Project Management Professional

Project Management Body of Knowledge (PMBOK Guide 5th.Edition)





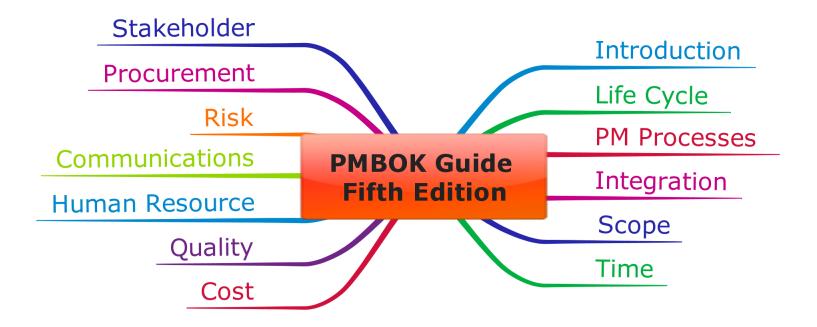
- Section 1: Introduction
- Section 2: Organizational influences and project life cycle
- Section 3: Project management processes
- Section 4: Project integration management
- Section 5: Project scope management
- Section 6: Project time management
- Section 7: Project cost management



- Section 8: Project quality management
- Section 9: Project human resource management
- Section 10: Project communications management
- Section 11: Project risk management
- □ Section 12: Project procurement management
- Section 13: Project stakeholder management

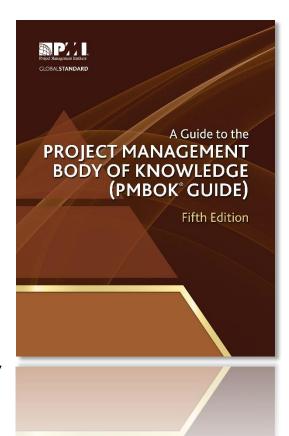


PMBOK (5th. Edition) Mind Map





- Section 1: Introduction
 - PMBOK Guide
 - Project
 - Project Management
 - Portfolio Management
 - Program Management
 - Organizational Project Management (OPM)
 - Project Vs. Operations Vs. Organizational Strategy
 - Business Value
 - Rroject Manager



Section 2: Organizational influences and project life cycle

Organizational Influences on PM

Stakeholders

Project Team

Project Life Cycle





- Section 3: Project Management Processes
 - Common Project Management Process Interactions
 - Project Management Process Groups
 - Initiating Process Group
 - Planning Process Group
 - Executing Process Group
 - Monitoring and Controlling Process Group
 - Closing Process Group
 - Knowledge Areas



- Section 4: Project Integration Management
 - Develop Project Charter
 - Develop Project Management Plan
 - Direct and Manage Project Work
 - Monitor and Control Project Work
 - Perform Integrated Change Control
 - Close Project or Phase





- Section 5: Project scope management
 - Plan Scope Management
 - Collect Requirements
 - Define Scope
 - Create WBS
 - Validate Scope
 - Control Scope





- Section 6: Project Time Management
 - Plan Schedule Management
 - □ Define Activities
 - Sequence Activities
 - Estimate Activity Resources
 - Estimate Activity Durations
 - Develop Schedule
 - Control Schedule



Section 7: Project Cost Management

Plan Cost Management

- Estimate Costs
- Determine Budget
- Control Costs









Section 9: Project Human Resource Management

Plan Human Resource Management

- Acquire Project Team
- Develop Project Team
- Manage Project Team





- Section 10: Project Communications Management
 - Plan Communications Management
 - Manage Communications
 - Control Communications





- □ Section 11: Project Risk Management
 - Plan Risk Management
 - Identify Risks
 - Perform Qualitative Risk Analysis
 - Perform Quantitative Risk Analysis
 - Plan Risk Responses
 - Control Risks





□ Section 12: Project Procurement Management

Plan Procurement Management

Conduct Procurements

Control Procurements

Close Procurements



- Section 13: Project Stakeholder Management
 - Identify Stakeholders
 - Plan Stakeholder Management
 - Manage Stakeholder Engagement
 - Control Stakeholder Engagement





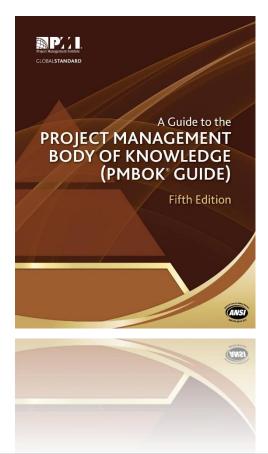






PMBOK Guide Editions

- White Paper (1983)
- PMBOK V.1 (1996)
- PMBOK V.2 (2000)
- PMBOK V.3 (2004)
- PMBOK V.4 (2008)
- PMBOK V.5
 - December 31, 2012





PMBOK Guide provides:

Guidelines

Guidelines for managing individuals projects

Definition

Defines project management related concepts

Description

Describes the project management life cycle and its related processes



PMBOK Guide Contains:

The globally recognized standard and guide for the project management profession

- Standard: is a formal document that describes established:
 - Norms
 - Methods
 - Processes
 - Practices
- Professions: such as
 - Law, Medicine, Accounting, Finance, Engineer.

- Purpose of the PMBOK Guide:
 - The acceptance of project management as a profession indicates that:
 - The application of knowledge
 - The Processes
 - Skills
 - Tools and techniques

Can have a significant impact on project success



The PMBOK Guide identifies that subset of the project management body of knowledge that is generally recognized as good practice.

Generally recognized: means

- Applicable to most projects most of the time
- There is consensus about their value and usefulness.

Good practice: means

General Agreement
 Organization & Project management team is responsible

Good Practice: Does <u>not</u> means

 that the knowledge described should always be applied uniformly to all projects



Also Guide as follow:

Summarize: Processes, Inputs and Outputs

Describe:
Norms,
Methods,
Processes &
Practices

Professional developmen t programs and certifications

A common vocabulary

Interrelation ships to other project managemen t disciplines



- Chapters are Sections
 - □ PMBOK Guide 4th Edition had 3 Sections with 12 chapters
 - Section 1: (Chapters 1 & 2)
 - Section 2: (Chapters 3)
 - Section 4: (Chapters from 4 to 12)
 - PMBOK Guide 5th Edition has 13 Section





Seven New Processes

- Plan Scope Management
- Plan Schedule Management
- Plan Cost Management
- Manage Communications
- Control Communications
- Plan Stakeholder Management
- Control Stakeholder Engagement



Two Deleted Processes

4th. Edition

- 10.3: distributed information
- 10.5: Report Performance

5th. Edition

- Deleted
- Deleted



10 Process Name changes

4th. Edition

- Direct and Manage Project Execution
- Verify Scope
- Plan Quality
- Perform Quality Control
- Develop Human Resources Plan
- Plan Communication
- Monitor and Control Risks
- Plan Procurements
- Administer Procurements
- Manage Stakeholder Expectations

5th. Edition

- Direct and Manage Project Work
- Validate Scope
- Plan Quality Management
- Control Quality
- Plan Human Resource Management
- Plan Communications Management
- Control Risks
- Plan Procurement Management
- Control Procurements
- Manage Stakeholder Engagement



Project XXXX Management Process

Plan Scope Management

Plan Schedule Management

Plan Cost Management





Control Quality

Control Risks

Control Communications



Section 1& 2: Introduction & Organization

Project
Management
Office (PMO)

Project Management vs.

Operation Management

The Characteristics & Structures of the project teams

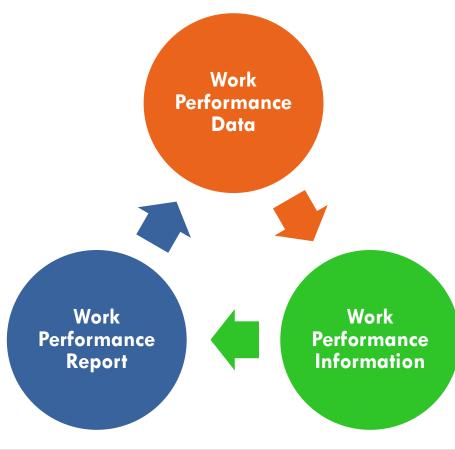
Project Life
Cycle & Phases





- Work Performance Data
- Work Performance Information
- Work Performance Report







What is a Project?

A temporary endeavor undertaken to create a unique product, service, or result

- Temporary
- Purpose
- Unique
- Beginning & End
- Recourses



What is a Project?

- Every Project:
 - Has a beginning and end.
 - Creates a unique product, service or result.
 - Temporary does not mean short in duration.
 - Temporary refers to the project's engagement and its longevity.
 - Temporary does not typically apply to the product, service, or result created by the project.
 - Most projects are undertaken to create a lasting outcome.



- The project ends when:
 - Objectives achieved.
 - Objectives will not achieved.
 - 3. Objectives cannot be met.
 - 4. When the need for the project no longer exists.
 - 5. When the client (customer, sponsor, or champion) wishes to terminate the project.



- A project can create:
 - A product.
 - A service or a capability to perform a service.
 - An improvement in the existing product or service lines.
 - A result.



- Successful Project
 - On Time
 - On Budget
 - To Specification
 - At Agreed Quality



- What we need to have successful project
 - Well Defined Scope.
 - Motivated Sponsor.
 - Approved Budget.
 - Power & Authority.
 - Commitment: from top level management.



□ Notes:

- The outcome of the project may be tangible or intangible.
- Project activities can be new to members of a project team, which may necessitate more dedicated planning than other routine work.
- Projects are undertaken at all organizational levels.



- Notes:
 - A project can involve:
 - A single individual
 - Multiple individuals
 - A single organizational unit
 - Multiple organizational units from multiple organizations.
 - Repetitive elements may be present in some project deliverables and activities, this repetition does not change the fundamental, unique characteristics of the project work.



Examples:

- Developing a new product, service, or result.
- Effecting a change in the structure, processes of an organization.
- Developing or acquiring a new or modified information system.
- Constructing a building, infrastructure ...
- Implementing, improving or enhancing existing business processes and procedures.



What is Project Management?

The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.

- PM is accomplished through the 47 processes, which are categorized into five Process Groups:
 - Initiating
 - Planning
 - Executing
 - 4. Monitoring and Controlling
 - 5. Closing



- Managing a project typically includes:
 - Identifying Requirements
 - Addressing the needs, concerns, and expectations of the stakeholders in planning and executing the project
 - Setting up, maintaining, and carrying out communications among stakeholders
 - Managing stakeholders towards meeting project requirements and creating project deliverables.



- Managing a project typically includes:
 - Balancing the competing project constraints, which include:
 - Scope
 - Quality
 - Schedule
 - Budget
 - Resources
 - Risks



- Notes:
 - If the schedule is shortened:
 - Often the budget needs to be increased to add additional <u>resources</u> to complete the same amount of work in less time

- If a budget increase is not possible
 - The <u>scope</u> or targeted <u>quality</u> may be reduced to deliver the project's end result in less time within the same budget amount



- □ Notes:
 - Stakeholders with different ideas = Greater challenge.
 - Changing the project requirements or objectives may create additional risks.



- Progressive Elaboration (Rolling Wave Planning)
 - Because of the potential for change:-
 - The project management plan is iterative and goes through progressive elaboration throughout the project's life cycle.

- Progressive elaboration:
 - Involves continuously improving and detailing a plan as more-detailed and specific information and more accurate estimates become available



- The Relationships among Portfolios, Programs, and Projects
 - A portfolio refers to a collection of:
 - Projects, programs, subportfolios, and operations managed as a group to achieve strategic objectives.

- Programs are grouped within a portfolio and are comprised of:
 - Subprograms, projects, or other work that are managed in a coordinated fashion in support of the portfolio.



- The Relationships among Portfolios, Programs, and Projects
 - Individual projects that are either within or outside of a program are still considered part of a portfolio.

- Although the projects or programs within the portfolio may not necessarily be interdependent or directly related
 - They are linked to the organization's strategic plan by means of the organization's portfolio.



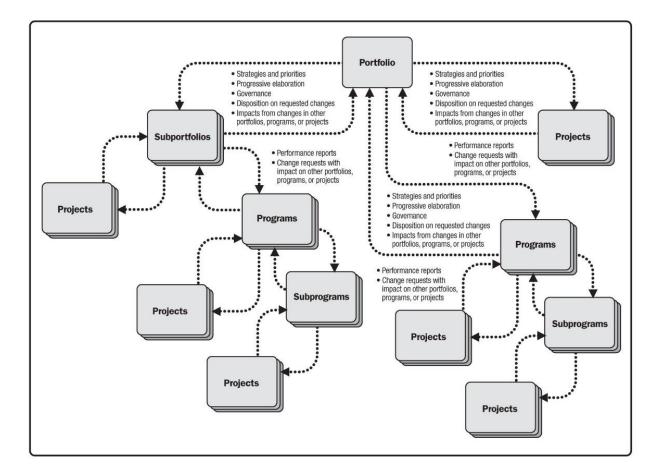




Figure 1-1. Portfolio, Program, and Project Management Interactions

Relationships among Portfolio Management, Program Management,
 Project Management and Organizational Project Management

- Organizational Project Management (OPM)
 - A strategy execution framework utilizing project, program, and portfolio management as well as organizational enabling practices to consistently and predictably deliver organizational strategy producing better performance, better results, and a sustainable competitive advantage.



Relationships among Portfolio Management, Program Management,
 Project Management and Organizational Project Management

Portfolio, Program, and Project Management are aligned with or driven by Organizational Strategies.

Conversely

Portfolio, Program, and Project Management differ in the way each contributes to the achievement of strategic goals.



Relationships among Portfolio Management, Program Management,
 Project Management and Organizational Project Management

- Portfolio Management aligns with organizational strategies by selecting:
 - The right programs or projects
 - Prioritizing the work
 - Providing the needed resources



Relationships among Portfolio Management, Program Management,
 Project Management and Organizational Project Management

Program Management harmonizes its <u>projects</u> and <u>program components</u> and controls interdependencies in order to realize specified benefits



Relationships among Portfolio Management, Program Management,
 Project Management and Organizational Project Management

- Project Management develops and implements plans to achieve a specific scope.
 - Driven by the objectives of the <u>program</u> or <u>portfolio</u>.



Organizational Project Management (OPM)

	PROJECTS	PROGRAMS	PORTFOLIOS
SCOPE	 Projects have defined objectives. Scope is progressively elaborated throughout the project life cycle. 	 Programs have a larger scope and provide more significant benefits. 	 Portfolios have a business scope that changes with the strategic goals of the organization.
CHANGE	 Project managers expect change and implement processes to keep change managed and controlled. 	 The program manager must expect change from both inside and outside the program and be prepared to manage it. 	 Portfolio managers continually monitor changes in the broad environment.
PLANNING	 Project managers progressively elaborate high-level information into detailed plans throughout the project life cycle. 	 Program managers develop the overall program plan and create high-level plans to guide detailed planning at the component level. 	 Portfolio managers create and maintain necessary processes and communication relative to the aggregate portfolio.

The comparison of project, program, and portfolio views across several dimensions within the organization.

Organizational Project Management (OPM)

	PROJECTS	PROGRAMS	PORTFOLIOS
MANAGEMENT	 Project managers manage the project team to meet the project objectives. 	 Program managers manage the program staff and the project managers; they provide vision and overall leadership. 	 Portfolio managers may manage or coordinate portfolio management staff.
SUCCESS	 Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction. 	 Success is measured by the degree to which the program satisfies the needs and benefits for which it was undertaken. 	 Success is measured in terms of aggregate performance of portfolio components.
MONITORING	 Project managers monitor and control the work of producing the products, services or results that the project was undertaken to produce. 	 Program managers monitor the progress of program components to ensure the overall goals, schedules, budget, and benefits of the program will be met. 	 Portfolio managers monitor aggregate performance and value indicators.

The comparison of project, program, and portfolio views across several dimensions within the organization.

Program:

A group of related projects, subprograms, and program activities managed in a coordinated way to obtain benefits not available from managing them individually

■ Notes:

- Programs may include elements of related work outside the scope of the discrete projects in the program.
- A project may or may not be part of a program but a program will always have projects.



Program management:

The application of knowledge, skills, tools, and techniques to a program in order to meet the program requirements and to obtain benefits and control not available by managing projects individually

Notes:

- Projects within a program are related through the common outcome or collective capability.
- If the relationship between projects is only that of a shared client, seller, technology, or resource, the effort should be managed as a portfolio of projects rather than as a program.



Program management:

The application of knowledge, skills, tools, and techniques to a program in order to meet the program requirements and to obtain benefits and control not available by managing projects individually

- Notes:
 - Actions related to these interdependencies may include:
 - Resolving resource constraints and/or conflicts that affect multiple projects within the program
 - Aligning organizational/strategic direction that affects project and program goals and objectives
 - Resolving issues and change management within a shared governance structure.

Portfolio Management

A portfolio refers to projects, programs, subportfolios, and operations managed as a group to achieve strategic objectives.



Portfolio Management

- Notes:
 - The projects or programs of the portfolio may not necessarily be interdependent or directly related.
 - Refers to the centralized management of one or more portfolios to achieve strategic objectives.
 - Focuses on ensuring that projects and programs are reviewed to prioritize resource allocation, and that the management of the portfolio is consistent with and aligned to organizational strategies.



Portfolio Management

- Example:
 - An infrastructure firm that has the strategic objective of "maximizing the return on its investments" may put together a portfolio that includes a mix of projects in oil and gas, power, water, roads, rail, and airports. From this mix, the firm may choose to manage related projects as one program. All of the power projects may be grouped together as a power program.

Similarly, all of the water projects may be grouped together as a water program, Thus, the power program and the water program become integral components of the enterprise portfolio of the infrastructure firm.



Projects and Strategic Planning

Projects are often utilized as a means of directly or indirectly achieving objectives within an organization's strategic plan.



Project Management Office (PMO)

□ PMO:

A management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques.

- The responsibilities of a PMO can range:
 - From providing project management support functions
 - To actually being responsible for the direct management of one or more projects.



- There are several types of PMO structures in organizations, each varying in the degree of control and influence they have on projects within the organization, such as:
 - Supportive
 - Controlling
 - Compliance
 - Directive



- A primary function of a PMO is to support project managers in a variety of ways which may include:
 - Managing shared resources across all projects administered by the PMO
 - Identifying and developing project management methodology, best practices, and standards
 - Coaching, mentoring, training, and oversight.
 - Monitoring the project management standards, policies, procedures and templates by means of project audits.



□ Notes:

- The PMO integrates data and information from corporate strategic projects and evaluates how higher level strategic objectives are being fulfilled.
- The PMO is the natural liaison between the organization's portfolios, programs, projects, and the corporate measurement systems
- The projects supported or administered by the PMO may not be related, other than by being managed together.
- The specific form, function, and structure of a PMO are dependent upon the needs of the organization that it supports.

□ Notes:

- A PMO may have the authority to act as an integral stakeholder and a key decision maker throughout the life of each project, to make:
 - Recommendations
 - Terminate projects
 - Take other actions, as required, to remain aligned with the business objectives.
- The PMO may be involved in the selection, management, and deployment of shared or dedicated project resources.



THE PROJECT MANAGER	THE PMO
Focuses on the specified project objectives	 Manages major program scope changes which may be seen as potential opportunities to better achieve business objectives.
 Controls the assigned project resources to best meet project objectives 	 Optimizes the use of shared organizational resources across all projects.
 Manages the constraints scope, schedule, cost, and quality of the individual projects 	 Manages the methodologies, standards, overall risk/opportunity, and interdependencies among projects at the enterprise level.

Differences between the role of project managers and a PMO



- Business value is:
 - a concept that is unique to each organization.
 - The entire value of the business
 - The total sum of all tangible and intangible elements.
 - Tangible elements include monetary assets, fixtures, stockholder equity, and utility.
 - Intangible elements include good will, brand recognition, public benefit, and trademarks.



- Depending on the organization
 - Business value scope can be short, medium or long-term.
 - Value may be created through the effective management of ongoing operations.
 - Through the effective use of portfolio, program, & project management:
 - Organizations have the ability to establishing the processes to meet strategic objectives and obtain greater business value from their project investments.



□ Notes:

- Successful business value realization begins with comprehensive strategic planning and management.
- Organizational strategy can be expressed through the mission & vision.
- Effective organizational strategy provides defined directions for development and growth.
- The use of portfolio, program, and project management techniques is essential to bridge the gap between organizational strategy & successful business value realization



□ Notes:

- Portfolio management aligns components:
 - projects, programs, or operations to the organizational strategy, organized into portfolios or subportfolios to optimize project or program objectives, dependencies, costs, timelines, benefits, resources, and risks.
 - This allows organizations to have an overall view of how the strategic goals are reflected in the portfolio, institute appropriate governance management, and authorize human, financial, or material resources to be allocated based on expected performance and benefits.



- □ Notes:
 - Using program management:
 - organizations have the ability to align multiple projects for optimized or integrated costs, schedule, effort, and benefits.

- Program management focuses on:
 - project interdependencies and helps to determine the optimal approach for managing and realizing the desired benefits.



- □ Notes:
 - With project management:
 - Organizations have the ability to apply knowledge, processes, skills & tools and techniques that enhance the likelihood of success over a wide range of projects.

- Project management focuses on:
 - The successful delivery of products, services, or results.

- Projects are a means of:
 - achieving organizational strategy and objectives within programs & portfolios

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Project Management Professional - PMBOK v.5

- □ Notes:
 - By strengthening organizational enablers such as:
 - Structural
 - Cultural
 - Technological
 - Human resource practices

Organizations can further facilitate the alignment of these portfolio, program, and project management activities





The project manager is:

■ The person assigned by the performing organization to lead the team that is responsible for achieving the project objectives.

- The role of a project manager is distinct from:
 - Functional manager
 OR
 - 2. Operations manager.





- The functional manager is focused on:
 - Providing management oversight for a functional or a business unit



Ensuring that business operations are efficient.







- Depending on the organizational structure:
 - a project manager may report to a functional manager.

- In other organizational structure:
 - a project manager may be one of several project managers who report to a program or portfolio manager.







- PM also works closely & in collaboration with other roles, such as:
 - a business analyst
 - quality assurance manager
 - subject matter experts.





- PM Responsibilities:
 - PMs have the responsibility to satisfy the needs:
 - Task needs
 - Team needs
 - Individual needs





- PM Responsibilities and Competencies
 - Notes:
 - The PM becomes the link between the strategy and the team.
 - Projects are essential to the growth and survival of organizations.



- PM Responsibilities and Competencies
 - The PM possess the following competencies:
 - Knowledge:
 - Refers to what the project manager knows about project management.
 - Performance:
 - Refers to what the project manager is able to do or accomplish while applying his or her project management knowledge.
 - Personal:
 - Refers to how the project manager behaves when performing the project or related activity.



Interpersonal Skills

- PMs accomplish work through the project team and other stakeholders.
- Effective PMs require a balance of:
 - Ethical skills
 - Interpersonal skills
 - Conceptual skills





- Interpersonal Skills
 - Leadership
 - Team building
 - Motivation
 - Communication
 - Influencing
 - Decision making

- Political and cultural awareness
- Negotiation
- Trust building
- Conflict management
- Coaching



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