# 1



## INTRODUCTION

*A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Fifth Edition provides guidelines for managing individual projects and defines project management related concepts. It also describes the project management life cycle and its related processes, as well as the project life cycle.

The *PMBOK® Guide* contains the globally recognized standard and guide for the project management profession (found in Annex A1). A standard is a formal document that describes established norms, methods, processes, and practices. As with other professions, the knowledge contained in this standard has evolved from the recognized good practices of project management practitioners who have contributed to the development of this standard.

The first two sections of the *PMBOK® Guide* provide an introduction to key concepts in the project management field. Section 3 summarizes the Process Groups and provides an overview of process interactions among the ten Knowledge Areas and five Process Groups. Sections 4 through 13 are the guide to the project management body of knowledge. These sections expand on the information in the standard by describing the inputs and outputs, as well as tools and techniques used in managing projects. Annex A1 is the standard for project management and presents the processes, inputs, and outputs that are considered to be good practice on most projects most of the time.

This section defines several key terms and the relationship among portfolio management, program management, project management and organizational project management. An overview of the *PMBOK® Guide* is found within the following sections:

**1.1 Purpose of the *PMBOK® Guide***

**1.2 What is a Project?**

**1.3 What is Project Management?**

**1.4 Relationships Among Portfolio Management, Program Management, Project Management,and Organizational Project Management**

**1.5 Relationship Between Project Management, Operations Management, and Organizational Strategy**

**1.6 Business Value**

**1.7 Role of the Project Manager**

**1.8 Project Management Body of Knowledge**

 

## 1.1 Purpose of the *PMBOK® Guide*

The acceptance of project management as a profession indicates that the application of knowledge, 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 the knowledge and practices described are applicable to most projects most of the time, and there is consensus about their value and usefulness. "Good practice" means there is general agreement that the application of the knowledge, skills, tools, and techniques can enhance the chances of success over many projects. "Good practice" does not mean that the knowledge described should always be applied uniformly to all projects; the organization and/or project management team is responsible for determining what is appropriate for any given project.

The *PMBOK® Guide* also provides and promotes a common vocabulary within the project management profession for using and applying project management concepts. A common vocabulary is an essential element of a professional discipline. The *PMI Lexicon of Project Management Terms* [1][1] provides the foundational professional vocabulary that can be consistently used by project, program, and portfolio managers and other stakeholders.

Annex A1 is a foundational reference for PMI's project management professional development programs. Annex A1 continues to evolve along with the profession, and is therefore not all-inclusive; this standard is a guide rather than a specific methodology. One can use different methodologies and tools (e.g., agile, waterfall, PRINCE2) to implement the project management framework.

In addition to the standards that establish guidelines for project management processes, the *Project Management Institute Code of Ethics and Professional Conduct* [2] guides practitioners of the profession and describes the expectations that practitioners should hold for themselves and others. The *Project Management Institute Code of Ethics and Professional Conduct* is specific about the basic obligation of responsibility, respect, fairness, and honesty. It requires that practitioners demonstrate a commitment to ethical and professional conduct. It carries the obligation to comply with laws, regulations, and organizational and professional policies. Practitioners come from diverse backgrounds and cultures, and the *Project Management Institute Code of Ethics and Professional Conduct* applies globally. When interacting with any stakeholder, practitioners should be committed to honest, responsible, fair practices and respectful dealings. Acceptance of the code is essential for project managers, and is a requirement for the following PMI® exams:

- Certified Associate in Project Management (CAPM)®
- Project Management Professional (PMP)®
- Program Management Professional (PgMP)®
- PMI Agile Certified Practitioner (PMI-ACP)℠
- PMI Risk Management Professional (PMI-RMP)®
- PMI Scheduling Professional (PMI-SP)®

[1]The numbers in brackets refer to the list of references at the end of this standard.

## 1.2 What is a Project?



A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. A project may also be terminated if the client (customer, sponsor, or champion) wishes to terminate the project. Temporary does not necessarily mean the duration of the project is short. It 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. For example, a project to build a national monument will create a result expected to last for centuries. Projects can also have social, economic, and environmental impacts that far outlive the projects themselves.

Every project creates a unique product, service, or result. The outcome of the project may be tangible or intangible. Although repetitive elements may be present in some project deliverables and activities, this repetition does not change the fundamental, unique characteristics of the project work. For example, office buildings can be constructed with the same or similar materials and by the same or different teams. However, each building project remains unique with a different location, different design, different circumstances and situations, different stakeholders, and so on.

An ongoing work effort is generally a repetitive process that follows an organization's existing procedures. In contrast, because of the unique nature of projects, there may be uncertainties or differences in the products, services, or results that the project creates. Project activities can be new to members of a project team, which may necessitate more dedicated planning than other routine work. In addition, projects are undertaken at all organizational levels. A project can involve a single individual or multiple individuals, a single organizational unit, or multiple organizational units from multiple organizations.

A project can create:

- A product that can be either a component of another item, an enhancement of an item, or an end item in itself;
- A service or a capability to perform a service (e.g., a business function that supports production or distribution);
- An improvement in the existing product or service lines (e.g., A Six Sigma project undertaken to reduce defects); or
- A result, such as an outcome or document (e.g., a research project that develops knowledge that can be used to determine whether a trend exists or a new process will benefit society).

Examples of projects include, but are not limited to:

- Developing a new product, service, or result;
- Effecting a change in the structure, processes, staffing, or style of an organization;
- Developing or acquiring a new or modified information system (hardware or software);
- Conducting a research effort whose outcome will be aptly recorded;
- Constructing a building, industrial plant, or infrastructure; or
- Implementing, improving, or enhancing existing business processes and procedures.

### 1.2.1. The Relationships Among Portfolios, Programs, and Projects

The relationship among portfolios, programs, and projects is such that 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. 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.

As Figure 1-1 illustrates, organizational strategies and priorities are linked and have relationships between portfolios and programs, and between programs and individual projects. Organizational planning impacts the projects by means of project prioritization based on risk, funding, and other considerations relevant to the organization's strategic plan. Organizational planning can direct the management of resources, and support for the component projects on the basis of risk categories, specific lines of business, or general types of projects, such as infrastructure and process improvement.

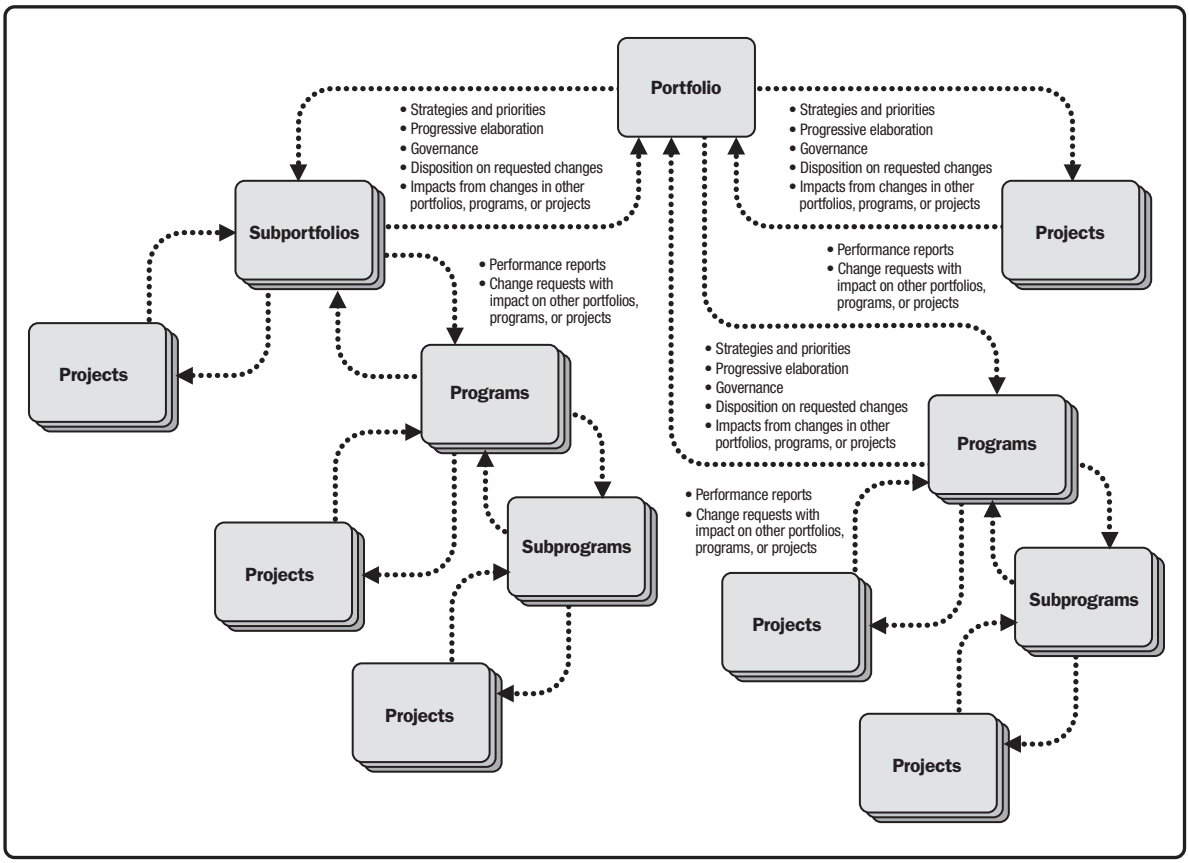


**Figure 1-1. Portfolio, Program, and Project Management Interactions**

## 1.3 What is Project Management?

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the 47 logically grouped project management processes, which are categorized into five Process Groups. These five Process Groups are:

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

Managing a project typically includes, but is not limited to:

- Identifying requirements;
- Addressing the various needs, concerns, and expectations of the stakeholders in planning and executing the project;
- Setting up, maintaining, and carrying out communications among stakeholders that are active, effective, and collaborative in nature;
- Managing stakeholders towards meeting project requirements and creating project deliverables;
- Balancing the competing project constraints, which include, but are not limited to:
    - Scope,
    - Quality,
    - Schedule,
    - Budget,
    - Resources, and
    - Risks.

The specific project characteristics and circumstances can influence the constraints on which the project management team needs to focus.

The relationship among these factors is such that if any one factor changes, at least one other factor is likely to be affected. For example, if the schedule is shortened, often the budget needs to be increased to add additional resources to complete the same amount of work in less time. If a budget increase is not possible, the scope or targeted quality may be reduced to deliver the project's end result in less time within the same budget amount. Project stakeholders may have differing ideas as to which factors are the most important, creating an even greater challenge. Changing the project requirements or objectives may create additional risks. The project team needs to be able to assess the situation, balance the demands, and maintain proactive communication with stakeholders in order to deliver a successful project.

Due to the potential for change, the development of the project management plan is an iterative activity and is progressively elaborated 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. Progressive elaboration allows a project management team to define work and manage it to a greater level of detail as the project evolves.

 

## 1.4 Relationships Among Portfolio Management, Program Management, Project Management, and Organizational Project Management



In order to understand portfolio, program, and project management, it is important to recognize the similarities and differences among these disciplines. It is also helpful to understand how they relate to organizational project management (OPM). OPM is 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.

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. Portfolio management aligns with organizational strategies by selecting the right programs or projects, prioritizing the work, and providing the needed resources, whereas program management harmonizes its projects and program components and controls interdependencies in order to realize specified benefits. Project management develops and implements plans to achieve a specific scope that is driven by the objectives of the program or portfolio it is subjected to and, ultimately, to organizational strategies. OPM advances organizational capability by linking project, program, and portfolio management principles and practices with organizational enablers (e.g. structural, cultural, technological, and human resource practices) to support strategic goals. An organization measures its capabilities, then plans and implements improvements towards the systematic achievement of best practices.

Table 1-1 shows the comparison of project, program, and portfolio views across several dimensions within the organization.

**Table 1-1. Comparative Overview of Project, Program, and Portfolio Management**

| Organizational Project Management | | | |
|---|---|---|---|
| | **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 an organizational scope that changes with the strategic objectives of the organization. |
| Change | Project managers expect change and implement processes to keep change managed and controlled. | Program managers expect change from both inside and outside the program and are prepared to manage it. | Portfolio managers continuously monitor changes in the broader internal and external 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. |
| 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, or program and project staff that may have reporting responsibilities into the aggregate portfolio. |
| 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 the aggregate investment performance and benefit realization of the portfolio. |
| 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 strategic changes and aggregate resource allocation, performance results, and risk of the portfolio. |

### 1.4.1 Program Management

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

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 focuses on the project interdependencies and helps to determine the optimal approach for managing them. 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, and
- Resolving issues and change management within a shared governance structure.

An example of a program is a new communications satellite system with projects for design of the satellite and the ground stations, the construction of each, the integration of the system, and the launch of the satellite.

### 1.4.2 Portfolio Management

A portfolio refers to projects, programs, subportfolios, and operations managed as a group to achieve strategic objectives. The projects or programs of the portfolio may not necessarily be interdependent or directly related. For 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.

Portfolio management refers to the centralized management of one or more portfolios to achieve strategic objectives. Portfolio management 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.

### 1.4.3 Projects and Strategic Planning

Projects are often utilized as a means of directly or indirectly achieving objectives within an organization's strategic plan. Projects are typically authorized as a result of one or more of the following strategic considerations:

- Market demand (e.g., a car company authorizing a project to build more fuel-efficient cars in response to gasoline shortages);
- Strategic opportunity/business need (e.g., a training company authorizing a project to create a new course to increase its revenues);
- Social need (e.g., a nongovernmental organization in a developing country authorizing a project to provide potable water systems, latrines, and sanitation education to communities suffering from high rates of infectious diseases);
- Environmental consideration (e.g., a public company authorizing a project to create a new service for electric car sharing to reduce pollution);
- Customer request (e.g., an electric utility authorizing a project to build a new substation to serve a new industrial park);
- Technological advance (e.g., an electronics firm authorizing a new project to develop a faster, cheaper, and smaller laptop based on advances in computer memory and electronics technology); and
- Legal requirement (e.g., a chemical manufacturer authorizing a project to establish guidelines for proper handling of a new toxic material).

### 1.4.4 Project Management Office

A project management office (PMO) is 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.** Supportive PMOs provide a consultative role to projects by supplying templates, best practices, training, access to information and lessons learned from other projects. This type of PMO serves as a project repository. The degree of control provided by the PMO is low.
- **Controlling.** Controlling PMOs provide support and require compliance through various means. Compliance may involve adopting project management frameworks or methodologies, using specific templates, forms and tools, or conformance to governance. The degree of control provided by the PMO is moderate.
- **Directive.** Directive PMOs take control of the projects by directly managing the projects. The degree of control provided by the PMO is high.

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 (e.g. balanced scorecard).

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.

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, or to terminate projects or take other actions, as required, to remain aligned with the business objectives. In addition, the PMO may be involved in the selection, management, and deployment of shared or dedicated project resources.

A primary function of a PMO is to support project managers in a variety of ways which may include, but are not limited to:

- 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 compliance with project management standards, policies, procedures, and templates by means of project audits;
- Developing and managing project policies, procedures, templates, and other shared documentation (organizational process assets); and
- Coordinating communication across projects.

Project managers and PMOs pursue different objectives and, as such, are driven by different requirements. All of these efforts are aligned with the strategic needs of the organization. Differences between the role of project managers and a PMO may include the following:

- The project manager focuses on the specified project objectives, while the PMO manages major program scope changes, which may be seen as potential opportunities to better achieve business objectives.
- The project manager controls the assigned project resources to best meet project objectives, while the PMO optimizes the use of shared organizational resources across all projects.
- The project manager manages the constraints (scope, schedule, cost, quality, etc.) of the individual projects, while the PMO manages the methodologies, standards, overall risks/opportunities, metrics, and interdependencies among projects at the enterprise level.

## 1.5 Relationship Between Project Management, Operations Management, and Organizational Strategy

Operations management is responsible for overseeing, directing, and controlling business operations. Operations evolve to support the day-to-day business, and are necessary to achieve strategic and tactical goals of the business. Examples include: production operations, manufacturing operations, accounting operations, software support, and maintenance.

Though temporary in nature, projects can help achieve the organizational goals when they are aligned with the organization's strategy. Organizations sometimes change their operations, products, or systems by creating strategic business initiatives that are developed and implemented through projects. Projects require project management activities and skill sets, while operations require business process management, operations management activities, and skill sets.

### 1.5.1 Operations and Project Management

Changes in business operations may be the focus of a dedicated project—especially if there are substantial changes to business operations as a result of a new product or service delivery. Ongoing operations are outside of the scope of a project; however, there are intersecting points where the two areas cross.

Projects can intersect with operations at various points during the product life cycle, such as:

 

- At each closeout phase;
- When developing a new product, upgrading a product, or expanding outputs;
- While improving operations or the product development process; or
- Until the end of the product life cycle.

At each point, deliverables and knowledge are transferred between the project and operations for implementation of the delivered work. This implementation occurs through a transfer of project resources to operations toward the end of the project, or through a transfer of operational resources to the project at the start.

Operations are ongoing endeavors that produce repetitive outputs, with resources assigned to do basically the same set of tasks according to the standards institutionalized in a product life cycle. Unlike the ongoing nature of operations, projects are temporary endeavors.

### 1.5.1.1 Operations Management

Operations management is a subject area that is outside the scope of formal project management as described in this standard.

Operations management is an area of management concerned with ongoing production of goods and/or services. It involves ensuring that business operations continue efficiently by using the optimum resources needed and meeting customer demands. It is concerned with managing processes that transform inputs (e.g., materials, components, energy, and labor) into outputs (e.g., products, goods, and/or services).

### 1.5.1.2 Operational Stakeholders in Project Management

While operations management is different from project management (see 1.5.1.1), the needs of stakeholders who perform and conduct business operations are important considerations in projects that will affect their future work and endeavors. Project managers who consider and appropriately include operational stakeholders in all phases of projects, gain insight and avoid unnecessary issues that often arise when their input is overlooked.

Operational stakeholders should be engaged and their needs identified as part of the stakeholder register, and their influence (positive or negative) should be addressed as part of the risk management plan.

The following list includes examples of operational stakeholders (depending upon the business):

- Plant operators,
- Manufacturing line supervisors,
- Help desk staff,
- Production system support analysts,
- Customer service representative,
- Salespersons,
- Maintenance workers,
- Telephone sales personnel,
- Call center personnel,
- Retail workers,
- Line managers, and
- Training officers.

## 1.5.2 Organizations and Project Management

Organizations use governance to establish strategic direction and performance parameters. The strategic direction provides the purpose, expectations, goals, and actions necessary to guide business pursuit and is aligned with business objectives. Project management activities should be aligned with top-level business direction, and if there is a change, then project objectives need to be realigned. In a project environment, changes to project objectives affect project efficiency and success. When the business alignment for a project is constant, the chance for project success greatly increases because the project remains aligned with the strategic direction of the organization. Should something change, projects should change accordingly.

### 1.5.2.1 Project-Based Organizations

Project-based organizations (PBOs) refer to various organizational forms that create temporary systems for carrying out their work. PBOs can be created by different types of organizations (i.e., functional, matrix, or projectized (see 2.1.3)). The use of PBOs may diminish the hierarchy and bureaucracy inside the organizations as the success of the work is measured by the final result rather than by position or politics.

PBOs conduct the majority of their work as projects and/or provide project rather than functional approaches. PBOs can refer to either entire firms (as in telecommunications, oil and gas, construction, consultancy, and professional services) multi-firm consortia, or networks; it is also possible that some large project-based organizations have functional support areas or that the PBO is nested within subsidiaries or divisions of larger corporations.

 

#### 1.5.2.2 The Link Between Project Management and Organizational Governance

Projects (and programs) are undertaken to achieve strategic business outcomes, for which many organizations now adopt formal organizational governance processes and procedures. Organizational governance criteria can impose constraints on projects—particularly if the project delivers a service which will be subject to strict organizational governance.

Because project success may be judged on the basis of how well the resultant product or service supports organizational governance, it is important for the project manager to be knowledgeable about corporate/organizational governance policies and procedures pertaining to the subject matter of the product or service (e.g., if an organization has adopted policies in support of sustainability practices and the project involves construction of a new office building, the project manager should be aware of sustainability requirements related to building construction.)

#### 1.5.2.3 The Relationship Between Project Management and Organizational Strategy

Organizational strategy should provide guidance and direction to project management—especially when one considers that projects exist to support organizational strategies. Often it is the project sponsor or the portfolio or program manager who identifies alignment or potential conflicts between organizational strategies and project goals and then communicates these to the project manager. If the goals of a project are in conflict with an established organizational strategy, it is incumbent upon the project manager to document and identify such conflicts as early as possible in the project. At times, the development of an organizational strategy could be the goal of a project rather than a guiding principle. In such a case, it is important for the project to specifically define what constitutes an appropriate organizational strategy that will sustain the organization.

## 1.6 Business Value

Business value is a concept that is unique to each organization. Business value is defined as the entire value of the business; the total sum of all tangible and intangible elements. Examples of tangible elements include monetary assets, fixtures, stockholder equity, and utility. Examples of 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. However, through the effective use of portfolio, program, and project management, organizations will possess the ability to employ reliable, established processes to meet strategic objectives and obtain greater business value from their project investments. While not all organizations are business driven, all organizations conduct business-related activities. Whether an organization is a government agency or a nonprofit organization, all organizations focus on attaining business value for their activities.

Successful business value realization begins with comprehensive strategic planning and management. Organizational strategy can be expressed through the organization's mission and vision, including orientation to markets, competition, and other environmental factors. Effective organizational strategy provides defined directions for development and growth, in addition to performance metrics for success. In order to bridge the gap between organizational strategy and successful business value realization, the use of portfolio, program, and project management techniques is essential.

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.

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.

With project management, organizations have the ability to apply knowledge, processes, skills, and 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. Within programs and portfolios, projects are a means of achieving organizational strategy and objectives.

Organizations can further facilitate the alignment of these portfolio, program, and project management activities by strengthening organizational enablers such as structural, cultural, technological, and human resource practices. By continuously conducting portfolio strategic alignment and optimization, performing business impact analyses, and developing robust organizational enablers, organizations can achieve successful transitions within the portfolio, program, and project domains and attain effective investment management and business value realization.

## 1.7 Role of the Project Manager

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 a functional manager or operations manager. Typically the functional manager is focused on providing management oversight for a functional or a business unit, and operations managers are responsible for ensuring that business operations are efficient.

 

Depending on the organizational structure, a project manager may report to a functional manager. In other cases, a project manager may be one of several project managers who report to a program or portfolio manager who is ultimately responsible for enterprise-wide projects. In this type of structure, the project manager works closely with the program or portfolio manager to achieve the project objectives and to ensure the project management plan aligns with the overarching program plan. The project manager also works closely and in collaboration with other roles, such as a business analyst, quality assurance manager, and subject matter experts.

### 1.7.1 Responsibilities and Competencies of the Project Manager

In general, project managers have the responsibility to satisfy the needs: task needs, team needs, and individual needs. As project management is a critical strategic discipline, the project manager becomes the link between the strategy and the team. Projects are essential to the growth and survival of organizations. Projects create value in the form of improved business processes, are indispensable in the development of new products and services, and make it easier for companies to respond to changes in the environment, competition, and the marketplace. The project manager's role therefore becomes increasingly strategic. However, understanding and applying the knowledge, tools, and techniques that are recognized as good practice are not sufficient for effective project management. In addition to any area-specific skills and general management proficiencies required for the project, effective project management requires that the project manager 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. Personal effectiveness encompasses attitudes, core personality characteristics, and leadership, which provides the ability to guide the project team while achieving project objectives and balancing the project constraints.

### 1.7.2 Interpersonal Skills of a Project Manager

Project managers accomplish work through the project team and other stakeholders. Effective project managers require a balance of ethical, interpersonal, and conceptual skills that help them analyze situations and interact appropriately. Appendix X3 on Interpersonal Skills describes important interpersonal skills, such as:

- Leadership,
- Team building,
- Motivation,
- Communication,
- Influencing,
- Decision making,
- Political and cultural awareness,
- Negotiation,
- Trust building,
- Conflict management, and
- Coaching.

## 1.8 Project Management Body of Knowledge

The *PMBOK® Guide* contains the standard for managing most projects most of the time across many types of industries. The standard, included in Annex A1, describes the project management processes used to manage a project toward a more successful outcome.

This standard is unique to the project management field and has interrelationships to other project management disciplines such as program management and portfolio management.

Project management standards do not address all details of every topic. This standard is limited to individual projects and the project management processes that are generally recognized as good practice. Other standards may be consulted for additional information on the broader context in which projects are accomplished, such as:

- *The Standard for Program Management* [3] addresses the management of programs,
- *The Standard for Portfolio Management* [4] addresses the management of portfolios,
- *Organizational Project Management Maturity Model (OPM3®)* [5] examines an enterprise's project management process capabilities.

 