**Solutions to Accompany**

**Information Technology**

**Project Management,**

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CHAPTER 1

 Introduction to Project Management

## DISCUSSION QUESTIONS

1. Why is there a new or renewed interest in the field of project management?

More and more projects are being done by a variety of organizations. The projects are more complex and often involve the use of new technologies. Organizations are struggling to find better ways to manage their projects.

1. What is a project, and what are its main attributes? How is a project different from what most people do in their day-to-day jobs? What is the triple constraint? What other factors affect a project?

A project is “a temporary endeavor undertaken to create a unique product, service, or result” (PMBOK® Guide, 2017). In addition to being temporary and unique, other attributes of projects are that they drive change and enable value creation, are developed using progressive elaboration, require resources from various areas, should have a primary customer or sponsor, and involve uncertainty. Projects are different from day-to-day activities primarily because they have focused goals and definite beginning and ending dates. The triple constraint is managing scope, time, and cost goals. Other factors that affect a project include quality, risk, human resources, communications, and stakeholders.

1. What is project management? Briefly describe the project management framework, providing examples of stakeholders, knowledge areas, tools and techniques, and project success factors.

Project management is “the application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements” (PMBOK® Guide, 2017). The project management framework graphically shows the process of beginning with stakeholders’ needs and expectations, applying the nine project management knowledge areas and various tools and techniques to lead to project success and then enterprise success. For example, if a project were to implement an ERP system for a large company, the stakeholders would include managers and users from many different departments (finance, manufacturing, human resources, IT, etc.), all nine knowledge areas would be important, numerous tools and techniques would be applied, and project success might be based on implement key functions by a certain time for a certain cost or having the new system pay for itself within a certain time period.

4. What is a program? What is a project portfolio? Discuss the relationship between projects, programs, and portfolio management and the contributions they each make to enterprise success.

A program is “a group of related projects, subsidiary programs, and program activities

managed in a coordinated manner to obtain benefits and control not available from

managing them individually” (PMBOK® Guide, 2017). Project portfolio management focuses on managing projects as is as a portfolio of investments that contribute to the entire enterprise’s success. Projects are part of programs which are part of portfolios.

5. What is the role of the project manager? What are suggested skills for all project managers and for IT project managers? Why is leadership so important for project managers? How is the job market for IT project managers?

The project manager is ultimately responsible for project success. Many suggested skills are listed in this chapter, including strong leadership skills, organizational skills, technical skills, and many soft skills. IT project managers require the same skills as general project managers, but they should also know something about the technology used for the project and the types of people who work on information technology projects. Leading by example is the most important trait of effective project managers. The job market for information technology project managers continues to remain strong, especially for those with strong business and leadership skills.

1. Briefly describe some key events in the history of project management. What role does the Project Management Institute and other professional societies play in helping the profession

Some people say that building the Egyptian pyramids or the Great Wall of China were projects, but modern project management began with the Manhattan Project or development of the atomic bomb. That project took about three years and cost almost $2 billion in 1946 and had a separate project manager and technical manager. Gantt charts were first used in 1917, and network diagrams were used in 1958. PMI is the main professional society for project managers, and they run several certification programs.

1. What functions can you perform with project management software? What are the main differences between low-end, midrange, and high-end project management tools?

Project management software can assist in developing schedules, communicating information, tracking progress, etc. Low-end tools are the least expensive, and several are available as apps. Midrange tools can usually create Gantt charts, perform critical path analysis, etc. High-end tools often perform portfolio management and can be used across a large organization.

8. Discuss ethical decisions that project managers often face. Do you think a professional code of ethics makes it easier to work in an ethical manner?

Answers will vary. Some examples might include working on projects that you personally do not believe in (such as military projects, projects for different political parties, etc.), being asked to hire a friend or relative who is not as qualified as someone else, being offered bribes, etc. It is still difficult to work in an ethical manner even with a professional code of ethics.

## EXERCISES

Answers to all of these exercises will vary. The main purpose of these exercises is to have students begin doing some independent research to further explore the field of project management. You could have students discuss the results of these exercises in class to enhance participation, assign some for homework, or do both.