



Course Title :

Software Development Management
(WXGC6106)

Week 1

Project Management
(Information Technology Project Management)
Chapter 1

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What went wrong?

In 1995, the Standish Group published an study entitled “CHAOS”. It surveyed 365 IT executive manager in the US who managed more than 8380 IT projects. US Companies spent more than \$250 billion each year in the early 1990s on approximately 175,000 IT projects.

Average cost of IT projects	
For a Large Company	\$ 2.3 million
For a medium Company	\$ 1.3 million
For a Large Company	\$ 434,000

This study reported that overall success rate of IT projects was only **16.2** percent.



Many organizations claim that using project management grants them advantages, such as;

Better control of financial, physical and human resources.

Improved customer relations

Shorter development times

Lower costs

Higher profit margins

Improved productivity

Better internal coordination

Higher worker morale

What is a project ?

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

Some examples of IT Projects

A help desk or technical worker replaces laptops for a small department.

A small software development team adds a new feature to an internal software application

A company develops a new system to increase sales force productivity.

A television network develops a system to allow viewers to vote for programs.



Project Attributes :

A project has a unique purpose

A project is temporary

A project is developed using progressive elaboration

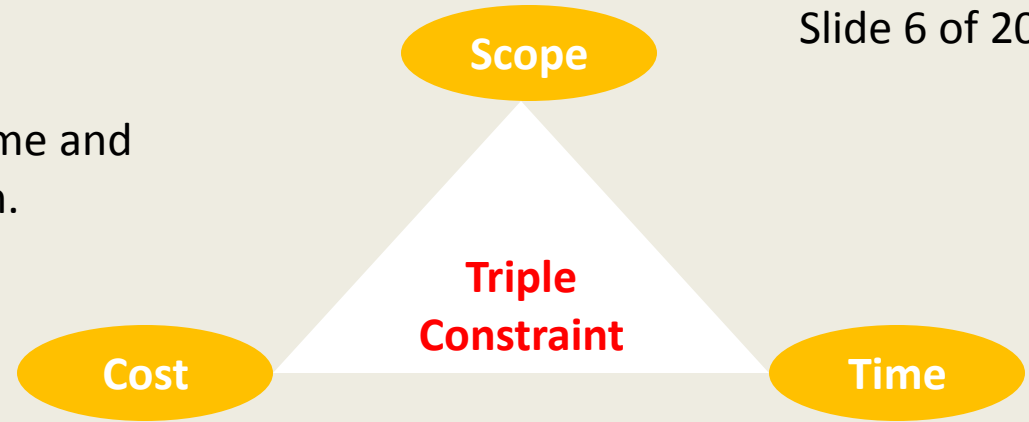
A project requires resources

A project should have a primary customer or sponsor

A project involves uncertainty



To create a successful project, scope , time and cost must be all taken into consideration.



Scope

What is the project trying to accomplish? What unique product or service does the customer or sponsor expect from the project?

Time

How long should it take to complete the project? What is the project's schedule?

Cost

What should it cost to complete the project?

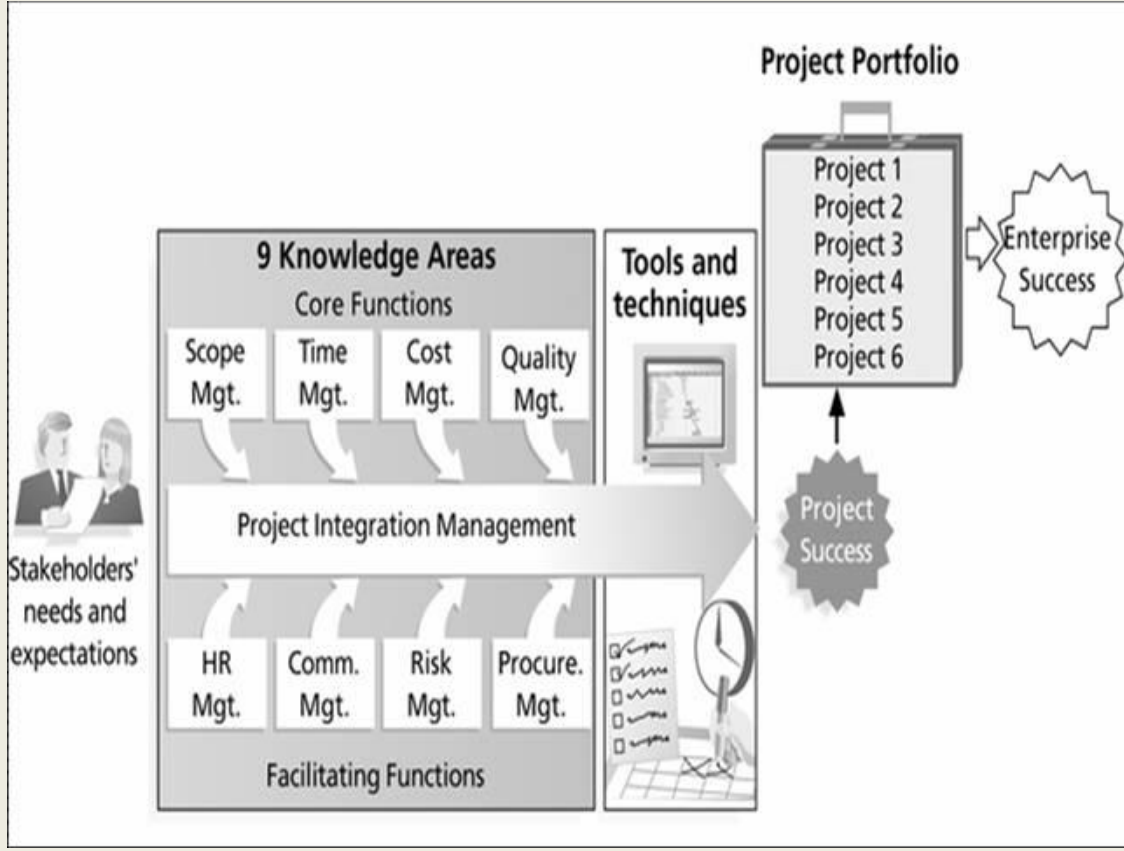
Successful project management means **meeting all three goals** (scope, time, and cost) and satisfying the project sponsor.



What is project management?

The application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements

Project Management Framework





What is project management? (Continue)

Project integration management involves coordinating all of the other project management knowledge areas throughout a project's life cycle. This integration ensures that all the elements of a project come together at the right times to complete a project successfully.

There are seven main projects involved in project integration management:

Develop the project charter

Develop the preliminary project scope statement

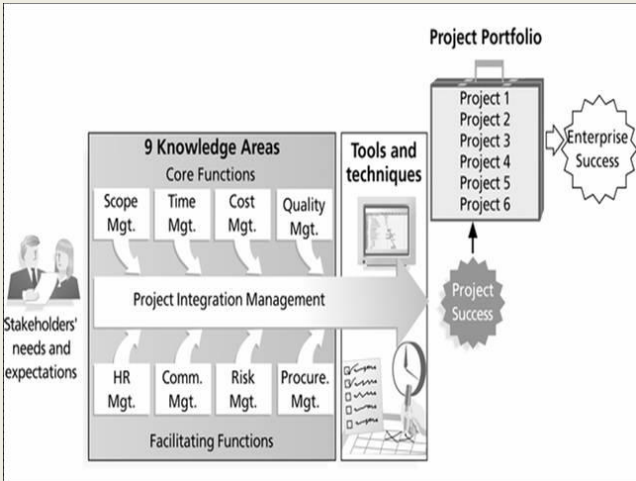
Develop the project management plan

Direct and manage project execution

Monitor and control the project work

Perform integrated change control

Close the project





What is project management? (Continue)

Project scope management includes the processes involved in defining and controlling what work is or is not included in a project.

There are five main processes involved in project scope management:

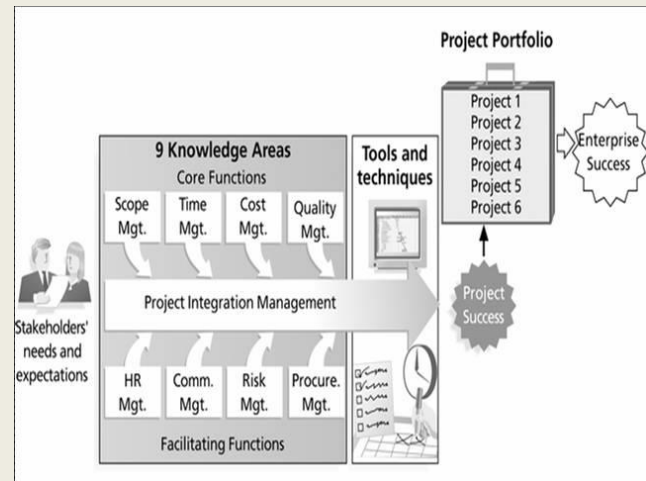
Scope planning

Scope definition

Creating the WBS

Scope verification

Scope control





What is project management? (Continue)

Project time management, simply defined, involves the processes required to ensure timely completion of a project.

There are six main processes in project time managements.

Activity definition

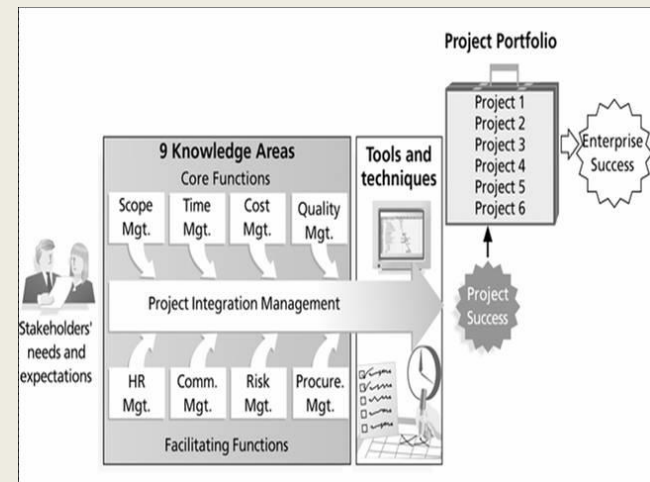
Activity sequencing

Activity resource estimating

Activity duration estimating

Schedule development

Schedule control





What is project management? (Continue)

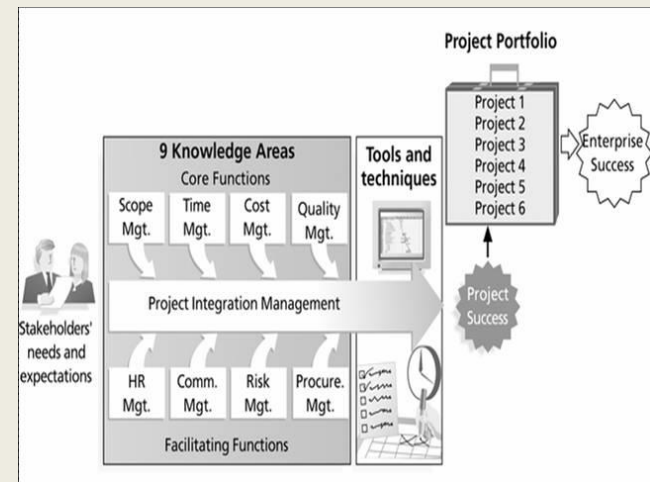
Project cost management includes the processes required to ensure that a project team completes a project within an approved budget.

Project Cost Management Processes:

Cost estimating

Cost budgeting

Cost control





What is project management? (Continue)

Project human resource management includes the processes required to make the most effective use of the people involved with a project. Human resource management includes all project stakeholders: sponsors, customers, project team members, support staff, suppliers supporting the project, and so on.

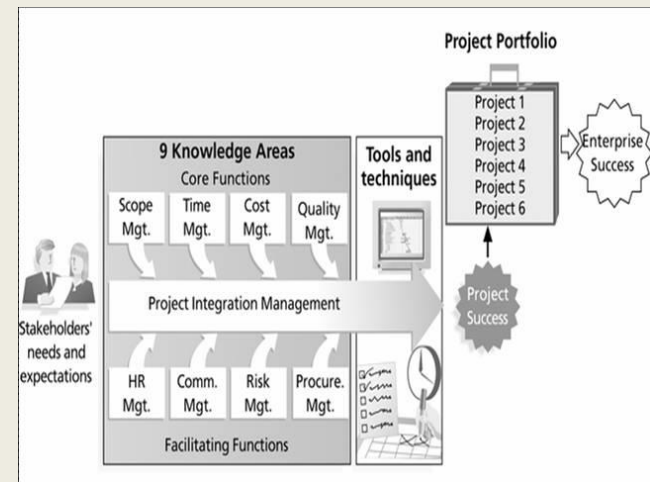
Human resource management includes the following four processes:

Human resource planning

Acquiring the project team

Developing the project team

Managing the project team





What is project management? (Continue)

Project communications management is to ensure timely and appropriate generation, collection, dissemination, storage, and disposition of project information.

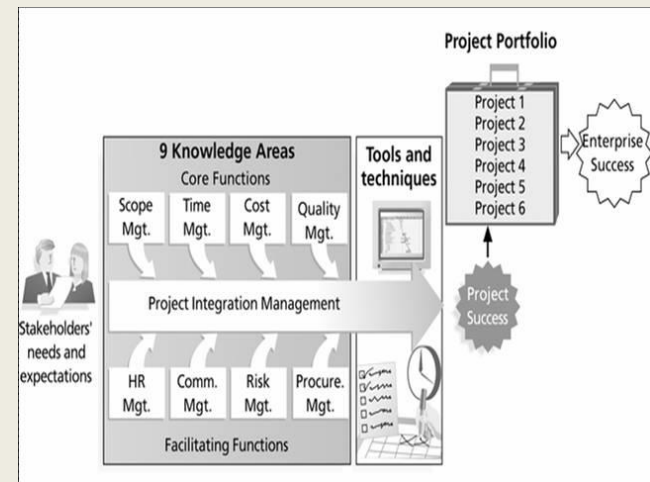
There are four main processes in project communication management

Communications planning

Information distribution

Performance reporting

Managing stakeholders





What is project management? (Continue)

Project risk management can be viewed as minimizing potential negative risks while maximizing potential positive risks.

There are six main processes of project procurement management

Planning purchases

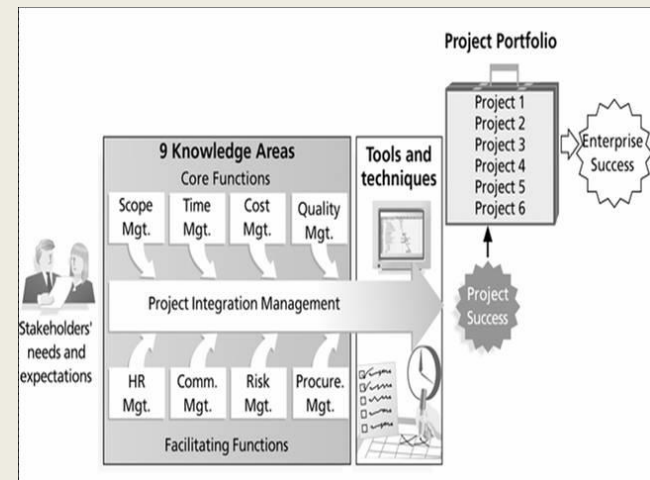
Planning contracting

Requesting seller

Selecting seller

Administering the contract

Closing the contract





What is project management? (Continue)

Project procurement management includes the processes required to acquire goods and services for a project from outside the performing organization.

There are six major processes involved in risk management

Risk management planning

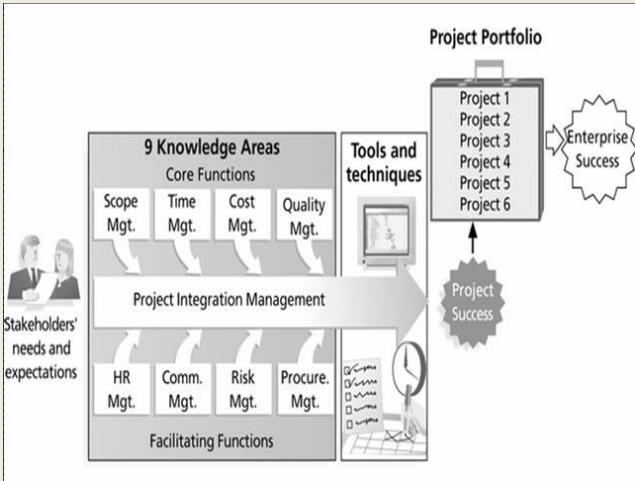
Risk identification

Qualitative risk analysis

Quantitative risk analysis

Risk response planning

Risk monitoring and control





What Went Right?

Studies done by the Standish Group showed some improvement in the statistics for information technology projects in the past decade :

The number of successful IT projects has more than doubled, from 16 percent in 1994 to 34 percent in 2002.

The number of failed projects has been cut in half, from 31 percent in 1994 to 15 percent in 2002.

The US spent about the same amount of money on IT projects in 1994 and 2002 (\$250 billion and \$255 billion, respectively), but the amount of money wasted on challenged and failed projects was down to \$55 billion in 2002 compared to \$140 billion in 1994.

What helps projects succeed?

- 1. Executive support**
- 2. User involvement**
- 3. Experienced project manager**
- 4. Clear business objectives**
- 5. Minimized scope**
- 6. Standard software infrastructure**
- 7. Firm basic requirements**
- 8. Formal methodology**
- 9. Reliable estimates**
- 10. Other criteria, such as small milestone, proper planning, competent staff , and ownership**



Most Significant Characteristics of Effective and Ineffective Project managers

Effective Project Managers

Ineffective Project Managers

Are visionaries

Are not self assured

Are technically competent

Lack technical expertise

Are deceive

Are poor communicators

Are good communication

Are poor motivators

Are good motivators

Stand up to top management when necessary

Support team members

Encourage new ideas



Most Significant Characteristics of Effective and Ineffective Project managers

Rank	IT Skill
1	PROJECT MANAGEMENT
2	SECURITY
3	NETWORK ADMINISTRATION
4	VIRTUALIZATION - CLOUD
5	BUSINESS ANALYSIS
6	BUSINESS PROCESS IMPROVEMENT
7	WEB DEVELOPMENT
8	DATABASE MANAGEMENT
9	WINDOWS ADMINISTRATION
10	DESKTOP SUPPORT

Linda Leung, **“The Top 10 IT Skills in Demand in 2010”**, Global Knowledge Webcast.
<http://www.globalknowledge.com/training/generic.asp?pageid=2568&country=United+States>



HW1: Summary of Project Management Web Sites and Articles

The purpose of this assignment is to help familiarize you with the world of project management. Review PMI's Web site (www.pmi.org) and some other links to project management sites.

Read at least One articles. *Make sure the articles have an author and date and were **written in 2010**.*

Write a one- to two-page single-spaced paper summarizing the following, using one paragraph for each bulleted item:

- What you learned about project management in general
- What you learned about IT project management
- What you thought of PMI's site, mostly in terms of content
- What you thought of the other sites you visited (list the sites and say summarize likes and dislikes of each)
- A brief summary of and your opinion about PM Network and the article you read in it