

CHAPTER 1: INTRODUCTION TO PROJECT MANAGEMENT

*Kathy Schwalbe, "Information Technology Project Management", 7th Edition, 2014,
Course Technology, Cengage Learning.*



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INTRODUCTION TO PROJECT MANAGEMENT

KOMPETENSI DASAR

MAHASISWA MENDAPATKAN PEMAHAMAN
MENGENAI MENINGKATNYA KEBUTUHAN AKAN
PENGELOLAAN PROYEK TI YANG LEBIH BAIK.

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INTRODUCTION TO PROJECT MANAGEMENT (CONT...)

AGENDA

- WHAT IS A PROJECT ?
- WHAT IS PROJECT MANAGEMENT?
- PROGRAM AND PROJECT PORTFOLIO
MANAGEMENT
- THE ROLE OF THE PROJECT MANAGER
- THE PROJECT MANAGEMENT PROFESSION

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INTRODUCTION

- MANY ORGANIZATIONS TODAY HAVE A NEW OR
RENEWED INTEREST IN PROJECT MANAGEMENT.
- COMPUTER HARDWARE, SOFTWARE, NETWORKS, AND
THE USE OF INTERDISCIPLINARY AND GLOBAL WORK
TEAMS HAVE RADICALLY CHANGED THE WORK
ENVIRONMENT.

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ADVANTAGES OF USING FORMAL PROJECT MANAGEMENT

- BETTER CONTROL OF FINANCIAL, PHYSICAL, AND HUMAN RESOURCES.
- IMPROVED CUSTOMER RELATIONS.
- SHORTER DEVELOPMENT TIMES.
- LOWER COSTS.
- HIGHER QUALITY AND INCREASED RELIABILITY.
- HIGHER PROFIT MARGINS.
- IMPROVED PRODUCTIVITY.
- BETTER INTERNAL COORDINATION.
- HIGHER WORKER MORALE (LESS STRESS).

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WHAT IS A PROJECT?

- A **PROJECT** IS "A TEMPORARY ENDEAVOR UNDERTAKEN TO CREATE A UNIQUE PRODUCT, SERVICE, OR RESULT."^{1*}
- OPERATIONS IS WORK DONE TO SUSTAIN THE BUSINESS.
- A PROJECT ENDS WHEN ITS OBJECTIVES HAVE BEEN REACHED, OR THE PROJECT HAS BEEN TERMINATED.
- PROJECTS CAN BE LARGE OR SMALL AND TAKE A SHORT OR LONG TIME TO COMPLETE.

¹PMI, A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (2004), p. 5.

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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 COLLEGE CAMPUS UPGRADES ITS TECHNOLOGY INFRASTRUCTURE TO PROVIDE WIRELESS INTERNET ACCESS.

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EXAMPLES OF IT PROJECTS

- A CROSS-FUNCTIONAL TASK FORCE IN A COMPANY DECIDES WHAT SOFTWARE TO PURCHASE AND HOW IT WILL BE IMPLEMENTED.
- A TELEVISION NETWORK DEVELOPS A SYSTEM TO ALLOW VIEWERS TO VOTE FOR CONTESTANTS AND PROVIDE OTHER FEEDBACK ON PROGRAMS.
- A GOVERNMENT GROUP DEVELOPS A SYSTEM TO TRACK CHILD IMMUNIZATIONS.

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PROJECT ATTRIBUTES

- A PROJECT:
 - HAS A UNIQUE PURPOSE.
 - IS TEMPORARY.
 - IS DEVELOPED USING PROGRESSIVE ELABORATION.
 - REQUIRES RESOURCES, OFTEN FROM VARIOUS AREAS.
 - SHOULD HAVE A PRIMARY CUSTOMER OR SPONSOR.
 - THE **PROJECT SPONSOR** USUALLY PROVIDES THE DIRECTION AND FUNDING FOR THE PROJECT.
 - INVOLVES UNCERTAINTY.

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PROJECT AND PROGRAM MANAGERS

- PROJECT MANAGERS WORK WITH PROJECT SPONSORS, PROJECT TEAMS, AND OTHER PEOPLE INVOLVED IN PROJECTS TO MEET PROJECT GOALS.
- **PROGRAM:** "A GROUP OF RELATED PROJECTS MANAGED IN A COORDINATED WAY TO OBTAIN BENEFITS AND CONTROL NOT AVAILABLE FROM MANAGING THEM INDIVIDUALLY."^{11*}
- PROGRAM MANAGERS OVERSEE PROGRAMS AND OFTEN ACT AS BOSSES FOR PROJECT MANAGERS.

*PMI, A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (2004), p. 5.

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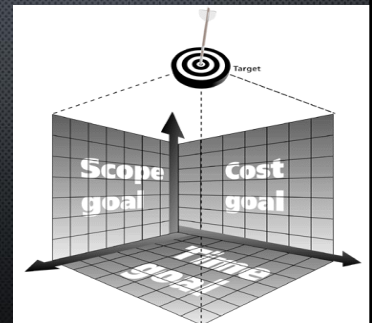
THE TRIPLE CONSTRAINTS

- EVERY PROJECT IS CONSTRAINED IN DIFFERENT WAYS BY ITS:
 - **SCOPE** GOALS: WHAT WORK WILL BE DONE?
 - **TIME** GOALS: HOW LONG SHOULD IT TAKE TO COMPLETE?
 - **COST** GOALS: WHAT SHOULD IT COST?
- IT IS THE PROJECT MANAGER'S DUTY TO BALANCE THESE THREE OFTEN-COMPETING GOALS.

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THE TRIPLE CONSTRAINTS

Successful project management means meeting all three goals (scope, time, and cost) – and satisfying the project's sponsor!



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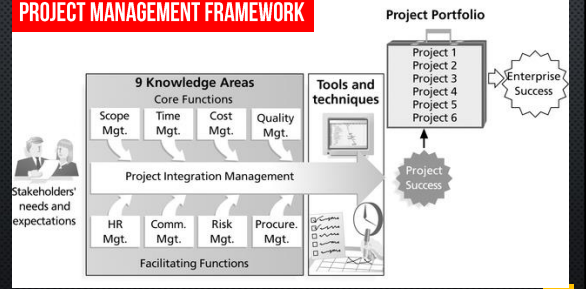
WHAT IS PROJECT MANAGEMENT?

- **PROJECT MANAGEMENT** IS "THE APPLICATION OF KNOWLEDGE, SKILLS, TOOLS AND TECHNIQUES TO PROJECT ACTIVITIES TO MEET PROJECT REQUIREMENTS."^{1*}

*PMI, A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (2004), p. 5.

WHAT IS PROJECT MANAGEMENT?

PROJECT MANAGEMENT FRAMEWORK



PROJECT STAKEHOLDERS

- **STAKEHOLDERS** ARE THE PEOPLE INVOLVED IN OR AFFECTED BY PROJECT ACTIVITIES.
- **STAKEHOLDERS INCLUDE:**
 - PROJECT SPONSOR
 - PROJECT MANAGER
 - PROJECT TEAM
 - SUPPORT STAFF
 - CUSTOMERS
 - USERS
 - SUPPLIERS
 - OPPONENTS TO THE PROJECT

9 PROJECT MANAGEMENT KNOWLEDGE AREAS

- **KNOWLEDGE AREAS** DESCRIBE THE KEY COMPETENCIES THAT PROJECT MANAGERS MUST DEVELOP.
 - FOUR CORE KNOWLEDGE AREAS LEAD TO SPECIFIC PROJECT OBJECTIVES (SCOPE, TIME, COST, AND QUALITY).
 - FOUR FACILITATING KNOWLEDGE AREAS ARE THE MEANS THROUGH WHICH THE PROJECT OBJECTIVES ARE ACHIEVED (HUMAN RESOURCES, COMMUNICATION, RISK, AND PROCUREMENT MANAGEMENT).
 - ONE KNOWLEDGE AREA (PROJECT INTEGRATION MANAGEMENT) AFFECTS AND IS AFFECTED BY ALL OF THE OTHER KNOWLEDGE AREAS.
 - ALL KNOWLEDGE AREAS ARE IMPORTANT!

PROJECT MANAGEMENT TOOLS AND TECHNIQUES

- PROJECT MANAGEMENT TOOLS AND TECHNIQUES ASSIST PROJECT MANAGERS AND THEIR TEAMS IN VARIOUS ASPECTS OF PROJECT MANAGEMENT.
- SPECIFIC TOOLS AND TECHNIQUES INCLUDE:
 - PROJECT CHARTERS, SCOPE STATEMENTS, AND WBS (SCOPE).
 - GANTT CHARTS, NETWORK DIAGRAMS, CRITICAL PATH ANALYSES, CRITICAL CHAIN SCHEDULING (TIME).
 - COST ESTIMATES AND EARNED VALUE MANAGEMENT (COST).

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PROJECT PORTFOLIO MANAGEMENT

- MANY ORGANIZATIONS SUPPORT AN EMERGING BUSINESS STRATEGY OF **PROJECT PORTFOLIO MANAGEMENT**:
 - ORGANIZATIONS GROUP AND MANAGE PROJECTS AS A PORTFOLIO OF INVESTMENTS THAT CONTRIBUTE TO THE ENTIRE ENTERPRISE'S SUCCESS.

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WHY THE IMPROVEMENTS?

"THE REASONS FOR THE INCREASE IN SUCCESSFUL PROJECTS VARY. FIRST, THE AVERAGE COST OF A PROJECT HAS BEEN MORE THAN CUT IN HALF. BETTER TOOLS HAVE BEEN CREATED TO MONITOR AND CONTROL PROGRESS AND **BETTER SKILLED PROJECT MANAGERS WITH BETTER MANAGEMENT PROCESSES** ARE BEING USED. THE FACT THAT THERE ARE PROCESSES IS SIGNIFICANT IN ITSELF."^{*}

^{*}THE STANDISH GROUP, "CHAOS 2001: A RECIPE FOR SUCCESS" (2001).

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PROJECT SUCCESS FACTORS

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 MILESTONES, PROPER PLANNING, COMPETENT STAFF, AND OWNERSHIP

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WHAT THE WINNER DO?

- RECENT RESEARCH FINDINGS SHOW THAT COMPANIES THAT EXCEL IN PROJECT DELIVERY CAPABILITY:
 - USE AN INTEGRATED PROJECT MANAGEMENT TOOLBOX THAT INCLUDES STANDARD AND ADVANCED TOOLS AND LOTS OF TEMPLATES.
 - GROW PROJECT LEADERS, EMPHASIZING BUSINESS AND SOFT SKILLS.
 - DEVELOP A STREAMLINED PROJECT DELIVERY PROCESS.
 - MEASURE PROJECT HEALTH USING METRICS, INCLUDING CUSTOMER SATISFACTION AND RETURN ON INVESTMENT.

THE ROLE OF THE PROJECT MANAGER

- JOB DESCRIPTIONS VARY, BUT MOST INCLUDE RESPONSIBILITIES SUCH AS PLANNING, SCHEDULING, COORDINATING, AND WORKING WITH PEOPLE TO ACHIEVE PROJECT GOALS.
- 97% OF SUCCESSFUL PROJECTS WERE LED BY EXPERIENCED PROJECT MANAGERS.

13 PROJECT MANAGEMENT JOB FUNCTIONS

1. DEFINE SCOPE OF PROJECT.
2. IDENTIFY STAKEHOLDERS, DECISION-MAKERS, AND ESCALATION PROCEDURES.
3. DEVELOP DETAILED TASK LIST (WORK BREAKDOWN STRUCTURES).
4. ESTIMATE TIME REQUIREMENTS.
5. DEVELOP INITIAL PROJECT MANAGEMENT FLOW CHART.
6. IDENTIFY REQUIRED RESOURCES AND BUDGET.

13 PROJECT MANAGEMENT JOB FUNCTIONS (CONT...)

7. EVALUATE PROJECT REQUIREMENTS.
8. IDENTIFY AND EVALUATE RISKS.
9. PREPARE CONTINGENCY PLAN.
10. IDENTIFY INTERDEPENDENCIES.
11. IDENTIFY AND TRACK CRITICAL MILESTONES.
12. PARTICIPATE IN PROJECT PHASE REVIEW.
13. SECURE NEEDED RESOURCES.
14. MANAGE THE CHANGE CONTROL PROCESS.
15. REPORT PROJECT STATUS.

SUGGESTED SKILLS FOR PROJECT MANAGERS

- PROJECT MANAGERS NEED A WIDE VARIETY OF SKILLS.
- THE PROJECT MANAGERS SHOULD:
 - BE COMFORTABLE WITH CHANGE.
 - UNDERSTAND THE ORGANIZATIONS THEY WORK IN AND WITH.
 - LEAD TEAMS TO ACCOMPLISH PROJECT GOALS.

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SUGGESTED SKILLS FOR PROJECT MANAGERS (CONT...)

- PROJECT MANAGERS NEED BOTH "HARD" AND "SOFT" SKILLS.
 - **HARD SKILLS** INCLUDE PRODUCT KNOWLEDGE AND KNOWING HOW TO USE VARIOUS PROJECT MANAGEMENT TOOLS AND TECHNIQUES.
 - **SOFT SKILLS** INCLUDE BEING ABLE TO WORK WITH VARIOUS TYPES OF PEOPLE.

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SUGGESTED SKILLS FOR PROJECT MANAGERS (CONT...)

- **COMMUNICATION SKILLS:** LISTENS, PERSUADES.
- **ORGANIZATIONAL SKILLS:** PLANS, SETS GOALS, ANALYZES.
- **TEAM-BUILDING SKILLS:** SHOWS EMPATHY, MOTIVATES, PROMOTES ESPRIT DE CORPS.
- **LEADERSHIP SKILLS:** SETS EXAMPLES, PROVIDES VISION (BIG PICTURE), DELEGATES, POSITIVE, ENERGETIC.
- **COPING SKILLS:** FLEXIBLE, CREATIVE, PATIENT, PERSISTENT.
- **TECHNOLOGY SKILLS:** EXPERIENCE, PROJECT KNOWLEDGE.

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MEDIA SNAPSHOT – GOOD PROJECT MANAGEMENT SKILLS FROM THE APPRENTICE

- LEADERSHIP AND PROFESSIONALISM ARE CRUCIAL.
- KNOW WHAT YOUR SPONSOR EXPECTS FROM THE PROJECT, AND LEARN FROM YOUR MISTAKES.
- TRUST YOUR TEAM AND DELEGATE DECISIONS.
- KNOW THE BUSINESS.
- STAND UP FOR YOURSELF.
- BE A TEAM PLAYER.

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MEDIA SNAPSHOT – GOOD PROJECT MANAGEMENT SKILLS FROM THE APPRENTICE (CONT...)

- STAY ORGANIZED AND DON'T BE OVERLY EMOTIONAL.
- WORK ON PROJECTS AND FOR PEOPLE YOU BELIEVE IN.
- THINK OUTSIDE THE BOX.
- THERE IS SOME LUCK INVOLVED IN PROJECT MANAGEMENT, AND YOU SHOULD ALWAYS AIM HIGH.

CHARACTERISTICS OF EFFECTIVE AND INEFFECTIVE PROJECT MANAGERS

Effective Project Managers

- Leadership by example
- Visionary
- Technically competent
- Decisive
- Good communicator
- Stands up to upper management when necessary
- Supports team members
- Encourages new ideas

Ineffective Project Managers

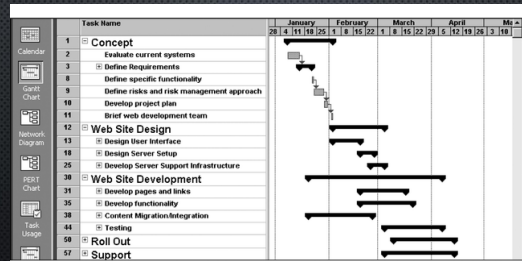
- Sets bad example
- Self-assured
- Lacks technical expertise
- Poor communication
- Poor motivator

IMPORTANCE OF LEADERSHIP SKILLS

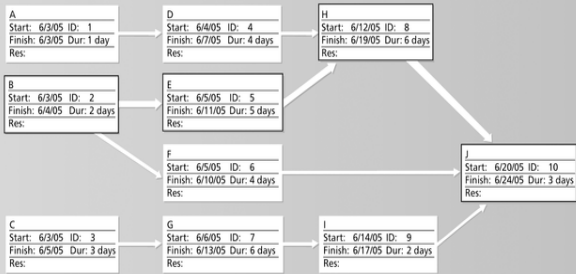
- EFFECTIVE PROJECT MANAGERS PROVIDE LEADERSHIP BY EXAMPLE.
- A LEADER FOCUSES ON LONG-TERM GOALS AND BIG-PICTURE OBJECTIVES WHILE INSPIRING PEOPLE TO REACH THOSE GOALS.
- A MANAGER DEALS WITH THE DAY-TO-DAY DETAILS OF MEETING SPECIFIC GOALS.
- PROJECT MANAGERS OFTEN TAKE ON BOTH LEADER AND MANAGER ROLES.

GANTT CHART

Work Breakdown Structure (WBS)



NETWORK DIAGRAM



PROJECT MANAGEMENT OFFICE (PMO)

- A PMO IS AN ORGANIZATIONAL GROUP RESPONSIBLE FOR COORDINATING THE PROJECT MANAGEMENT FUNCTION THROUGHOUT AN ORGANIZATION.
- POSSIBLE GOALS INCLUDE:
 - COLLECT, ORGANIZE, AND INTEGRATE PROJECT DATA FOR THE ENTIRE ORGANIZATION.
 - DEVELOP AND MAINTAIN TEMPLATES FOR PROJECT DOCUMENTS.
 - DEVELOP OR COORDINATE TRAINING IN VARIOUS PROJECT MANAGEMENT TOPICS.

PROJECT MANAGEMENT OFFICE (PMO) (CONT...)

- DEVELOP AND PROVIDE A FORMAL CAREER PATH FOR PROJECT MANAGERS.
- PROVIDE PROJECT MANAGEMENT CONSULTING SERVICES.
- PROVIDE A STRUCTURE TO HOUSE PROJECT MANAGERS WHILE THEY ARE ACTING IN THOSE ROLES OR ARE BETWEEN PROJECTS.

PROJECT MANAGEMENT SOFTWARE

- ENTERPRISE PM SOFTWARE INTEGRATES INFORMATION FROM MULTIPLE PROJECTS TO SHOW THE STATUS OF ACTIVE, APPROVED, AND FUTURE PROJECTS ACROSS AN ENTIRE ORGANIZATION.
- IT ALSO PROVIDES LINKS TO MORE DETAILED INFORMATION ON EACH PROJECT.
- MANY MANAGERS LIKE TO SEE STATUS IN COLOR – RED, YELLOW, AND GREEN.

THE PROJECT MANAGEMENT PROFESSION

- PROFESSIONAL SOCIETIES SUCH AS THE PROJECT MANAGEMENT INSTITUTE (PMI) HAVE GROWN SIGNIFICANTLY.
- THERE ARE SPECIFIC INTEREST GROUPS IN MANY AREAS, SUCH AS ENGINEERING, FINANCIAL SERVICES, HEALTH CARE, AND IT.
- PROJECT MANAGEMENT RESEARCH AND CERTIFICATION PROGRAMS CONTINUE TO GROW.

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PROJECT MANAGEMENT CERTIFICATION

- PMI PROVIDES CERTIFICATION AS A PROJECT MANAGEMENT PROFESSIONAL (PMP).
- A PMP HAS DOCUMENTED SUFFICIENT PROJECT EXPERIENCE, AGREED TO FOLLOW A CODE OF ETHICS, AND PASSED THE PMP EXAM.
- THE NUMBER OF PEOPLE EARNING PMP CERTIFICATION IS INCREASING QUICKLY.

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CHAPTER 1: INTRODUCTION TO PROJECT MANAGEMENT

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