

## **Lecture 1. Project Management. Overview**

History of Project Management Development. Distinctive attributes of Project. Definition and Key Concepts of Project Management. Project Characteristics. Comparison of Project Management with Ongoing Work or Business-Processes.

### **1. Project Management – Past and Present**

#### **Careers Using Project Management Skills**

What you learn from studying project management can help you in most careers as well as in your daily life. Being good at planning, talking to others, and getting things done, while also watching out for problems and using resources wisely, will help you succeed.

Project managers can be seen in many industry sectors including

- ✓ agriculture and natural resources;
- ✓ arts, media, and entertainment;
- ✓ building trades and construction;
- ✓ energy and utilities;
- ✓ engineering and design;
- ✓ fashion and interiors;
- ✓ finance and business;
- ✓ health and human services;
- ✓ hospitality, tourism, and recreation;
- ✓ manufacturing and product development;
- ✓ public and private education services;
- ✓ public services;
- ✓ retail and wholesale trade;
- ✓ transportation; and
- ✓ information technology.

Below we explore various careers and some of the ways in which project management knowledge can be leveraged.

#### *Business Owners*

Business owners definitely need to have some project management skills. With all successful businesses, the product or service to the customer meets their needs in many ways. The product or service is of the *quality* desired, the *costs* are aligned with what the consumer expected, and the *timeliness* of the product or service meets the deadline for the buyer of that item.

The pillars of project management are delivering a product/service within *schedule, cost, scope, and quality requirements*. Business owners need *planning*,

*organizing, and scoping skills and the ability to analyze, communicate, budget, staff, equip, implement, and deliver.*

Understanding the finances, operations, and expenses of the business are among the skills that project managers learn and practice. Some businesses may focus more on accounting, providing financial advice, sales, training, public relations, etc. Business owners may own a travel agency or provide hospitality.

*Example: Restaurant Owner/Manager*

Restaurant managers are responsible for the daily operations of a restaurant that prepares and serves meals and beverages to customers. Strong planning skills, especially coordinating with the various departments (kitchen, dining room, banquet operations, food service managers, vendors providing the supplies) ensure that customers are satisfied with their dining experience. Managers' abilities to recruit and retain employees, and monitor employee performance and training ensure quality with cost containment. Scheduling in many aspects, not only the staff but also the timing of the food service deliveries, is critical in meeting customer expectations.

Risk management is essential to ensure food safety and quality. Managers monitor orders in the kitchen to determine where delays may occur, and they work with the chef to prevent these delays. Legal compliance is essential in order for the restaurant to stay open, so restaurant managers direct the cleaning of the dining areas and the washing of tableware, kitchen utensils, and equipment. They ensure the safety standards and legality, especially in serving alcohol. Sensitivity and strong communication skills are needed when customers have complaints or employees feel pressured because more customers arrive than predicted.

Financial knowledge is needed for the soundness of running the restaurant, especially tracking special projects, events, and costs for the various menu selections. *Catering events smoothly can be an outcome of using project plans and the philosophy of project management.* The restaurant manager or the executive chef analyzes the recipes to determine food, labour, and overhead costs; determines the portion size and nutritional content of each serving; and assigns prices to various menu items, so that supplies can be ordered and received in time.

Planning is the key for successful implementation. Managers or executive chefs need to estimate food needs, place orders with distributors, and schedule the delivery of fresh food and supplies. They also plan for routine services (equipment maintenance, pest control, waste removal) and deliveries, including linen services or the heavy cleaning of dining rooms or kitchen equipment, to occur during slow times or when the dining room is closed. A successful restaurant relies on many skills that the project management profession emphasizes.

### *Example: Construction Managers*

Construction managers plan, direct, coordinate, and budget a wide variety of residential, commercial, and industrial construction projects including homes, stores, offices, roads, bridges, wastewater treatment plants, schools, and hospitals. *Strong scheduling skills* are essential for this role. *Communication skills* are often used in coordinating design and construction processes, teams executing the work, and governance of special trades (carpentry, plumbing, electrical wiring) as well as government representatives for the permit processes.

A construction manager may be called a project manager or project engineer. The construction manager ensures that the project is completed *on time* and *within budget* while meeting *quality* specifications and codes and maintaining a *safe work environment*. These managers create project plans in which they divide all required construction site activities into logical steps, estimating and budgeting the time required to meet established deadlines, usually utilizing sophisticated scheduling and cost-estimating software. Many use software packages such as *Microsoft Project®* or *Procure®* or online tools like *BaseCamp®*. Most construction projects rely on spreadsheets for project management. Procurement skills used in this field include acquiring the bills for material, lumber for the house being built, and more. Construction managers also coordinate labor, determining the needs and overseeing their performance, ensuring that all work is completed on schedule.

*Values* including sustainability, reuse, LEED-certified building (Leadership in Energy and Environmental Design), use of green energy, and various energy efficiencies are being incorporated into today's projects with an eye to the future. Jennifer Russell, spoke about project management and global sustainability at the 2011 Silicon Valley Project Management Institute (PMI) conference. She informed the attendees of the financial, environmental, and social areas in expanding the vision of project management with the slide in Figure 1. These values are part of the PMI's code of ethics and professionalism. By adhering to this code, project managers include in their decisions *the best interests of society, the safety of the public, and enhancement of the environment*.

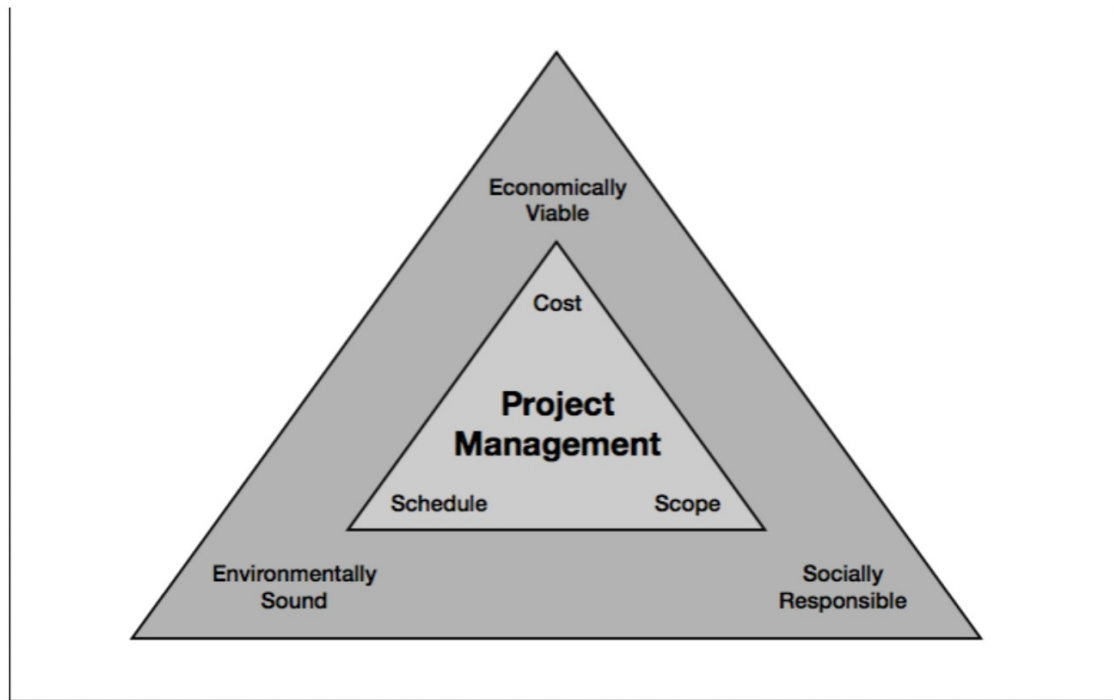


Figure 1. In addition to considering the cost, scope, and schedule of a project, a project manager should work to ensure the project is socially responsible, environmentally sound, and economically viable.

### *Creative Services*

Creative service careers include graphic artists, curators, video editors, gaming managers, multimedia artists, media producers, technical writers, interpreters, and translators. These positions use project management skills, especially in handling the delivery channel and meeting clients' requirements.

Let us look at one example, graphic artists, to understand and identify some of the project management skills that aid in this career.

### *Example: Graphic Artists*

Graphic artists plan, analyze, and create visual solutions to communication problems. They use many skills found in project management, especially communications. They work to achieve the most effective way to get messages across in print and electronic media. They emphasize their messages using colour, type, illustration, photography, animation, and various print and layout techniques. Results can be seen in magazines, newspapers, journals, corporate reports, and other publications. Other deliverables from graphic artists using project management skills include promotional displays, packaging, and marketing brochures supporting products and services, logos, and signage. In addition to print media, graphic artists create materials for the web, TV, movies, and mobile device apps.

Initiation in project management can be seen in developing a new design:

determining the needs of the client, the message the design should portray, and its appeal to customers or users. Graphic designers consider cognitive, cultural, physical, and social factors in planning and executing designs for the target audience, very similar to some of the dynamics a project manager considers in communicating with various project stakeholders. Designers may gather relevant information by meeting with clients, creative staff, or art directors; brainstorming with others within their firm or professional association; and performing their own research to ensure that their results have high quality and they can manage risks.

Graphic designers may supervise assistants who follow instructions to complete parts of the design process. Therefore *scheduling, resource planning, and cost monitoring* are pillars of project management seen in this industry. These artists use computer and communications equipment to meet their clients' needs and business requirements in a timely and cost-efficient manner.

### *Educators*

"Educator" is a broad term that can describe a career in teaching, maybe being a lecturer, a professor, a tutor, or a home-schooler. Other educators include gurus, mullahs, pastors, rabbis, and priests. Instructors also provide vocational training or teach skills like learning how to drive a car or use a computer. Educators provide motivation to learn a new language or showcase new products and services. Educators use project management skills including *planning and communication*.

### *Example: Teachers*

Some teachers foster the intellectual and social development of children during their formative years; other teachers provide knowledge, career skill sets, and guidance to adults. Project management skills that teachers exhibit include acting as facilitators or coaches and communicating in the classroom and in individual instruction. Project managers plan and evaluate various aspects of a project; teachers *plan, evaluate, and assign lessons; implement these plans; and monitor each student's progress* similar to the way a project manager monitors and delivers goods or services. Teachers use their people skills to manage students, parents, and administrators. The *soft skills* that project managers exercise can be seen in teachers who encourage collaboration in solving problems by *having students work in groups to discuss and solve problems as a team*.

Project managers may work in a variety of fields with a broad assortment of people, similar to teachers who work with students from varied ethnic, racial, and religious backgrounds. These teachers must have *awareness and understanding of different cultures*.

Teachers in some schools may be involved in *making decisions regarding the*

*budget, personnel, textbooks, curriculum design, and teaching methods*, demonstrating skills that a project manager would possess such as financial management and decision making.

### *Engineers*

Engineers apply the principles of science and mathematics to develop economical solutions to technical problems. As a project cycles from an idea in the project charter to the implementation and delivery of a product or service, engineers link scientific discoveries to commercial applications that meet societal and consumer needs.

Engineers use many project management skills, especially when they must *specify functional requirements*. They demonstrate attention to *quality* as they evaluate a *design's overall effectiveness, cost, reliability, and safety* similar to the project manager reviewing the criteria for the customer's acceptance of delivery of the product or service.

Estimation skills in project management are used in engineering. Engineers are asked many times to provide an estimate of *time* and *cost* required to complete projects.

### *Health Care*

There are many jobs and careers in health care that use project management skills. Occupations in the field of health care vary widely, such as athletic trainer, dental hygienist, massage therapist, occupational therapist, optometrist, nurse, physician, physician assistant, and X-ray technician. These individuals actively apply risk management in providing health care delivery of service to their clients, ensuring that they do not injure the person they are caring for.

### *Example: Radiology Technologists*

Radiology technologists and technicians perform diagnostic imaging examinations like X-rays, computed tomography (CT), magnetic resonance imaging (MRI), and mammography. They could also be called radiographers, because they produce X-ray films (radiographs) of parts of the human body for use in diagnosing medical problems.

Project management skills, especially people skills and strong communication, are demonstrated when they prepare patients for radiologic examinations by explaining the procedure and what position the patient needs to be in, so that the parts of the body can be appropriately radiographed. Risk management is demonstrated when these professionals work to prevent unnecessary exposure to radiation by surrounding the exposed area with radiation protection devices, such as lead shields,

or limiting the size of the X-ray beam. To ensure quality results, the health technician monitors the radiograph and sets controls on the X-ray machine to produce radiographs of the appropriate density, detail, and contrast.

Safety and regulations concerning the use of radiation to protect themselves, their patients, and their coworkers from unnecessary exposure is tracked in an efficient manner and reported as a control to ensure compliance. Project management skills are also used in preparing work schedules, evaluating equipment for purchase, or managing a radiology department.

Some radiological technologists specialize in CT scans; as CT technologists they too use project management skills. CT uses ionizing radiation to produce a substantial number of cross-sectional X-rays of an area of the body. Therefore, it requires the same precautionary measures that are used with X-rays, hence the need for risk management and monitoring for exposure.

Teamwork, not only with the patient that the radiological technologist supports and the doctor who ordered the request, but also with other health care providers, relies on strong communication, quality, work done in a timely manner, and wise use of hospital resources. This all boils down to ensuring that the three elements of the project management triangle of cost, schedule, and scope with quality delivered remain the essentials that provide a cornerstone to project management and the skills needed to obtain the objective.

### *Example: Nurses*

Nurses treat and educate patients and their families and the public about various medical conditions and provide advice and emotional support. Nurses establish a care plan for their patients that include activities like scheduling the administration and discontinuation of medications (e.g., intravenous (IV) lines for fluid, medication, blood, and blood products) and application of therapies and treatments. Communication with the patient, their family, physicians and other health care clinicians may be done in person or via technology. Telehealth allows nurses to provide care and advice through electronic communications media including videoconferencing, the Internet, or telephone.

Risk management is very important for a nurse, with some cases having a life or death consequence. Nurses monitor pain management and vital signs and provide status reports to physicians to help in responding to the health care needs of the patient.

The nursing field varies. Some nurses work in infection control. They identify, track, and control infectious outbreaks in health care facilities and create programs for outbreak prevention and response to biological terrorism. Others are educators who plan, develop, execute, and evaluate educational programs and curricula for the

professional development of students and graduate nurses. Nurses may use project management skills while conducting health care consultations, advising on public policy, researching in the field, or providing sales support of a product or service.

### *Paralegal*

Attorneys assume the ultimate responsibility for legal work but they often obtain assistance. Paralegals assume this role in law firms and perform many tasks to aid the legal profession. However, they are explicitly prohibited from carrying out duties considered to be the practice of law (e.g., giving legal advice, setting legal fees, presenting court cases).

Project management skills such as planning are used in helping lawyers prepare for closings, hearings, trials, and corporate meetings. Communication skills are used in preparing written reports that help attorneys determine how cases should be handled or drafts for actions such as pleading, filing motions, and obtaining affidavits.

Monitoring skills aid paralegals who may track files of important case documents, working on risk containment related to filing dates and responses to the court. Procurement skills, which a project manager uses, can also be seen from a paralegal perspective in negotiating terms of hiring expert witnesses as well as other services such as acquiring services from process servers.

Financial skills may be used as well, such as assisting in preparing tax returns, establishing trust funds, and planning estates or maintaining financial office records at the law firm.

Government, litigation, personal injury, corporate law, criminal law, employee benefits, intellectual property, labour law, bankruptcy, immigration, family law, and real estate are some of the many different law practices where a paralegal professional may use project management skills.

### *Software developer*

**Computer software developers and computer programmers design and develop software. They apply the principles of computer science and mathematics to create, test, and evaluate software applications and systems that make computers come alive. Software is developed in many kinds of projects: computer games, business applications, operating systems, network control systems, and more. Software developers use project management skills to develop the requirements for the software, identify and track the product development tasks, communicate within the development team and with clients, test cases, and manage quality, the schedule, and resources (staff, equipment, labs, and more).**



### *Science Technicians*

Science technicians use principles and theories of science and mathematics to assist in research and development and help invent and improve products and processes. In their jobs, they are more practically oriented than scientists. Planning skills project managers use can be seen as science technicians set up, operate, and maintain laboratory instruments; monitor experiments; and observe, calculate, and record results. *Quality* is a factor here as it is in project management; science technicians must ensure that processes are performed correctly, with proper proportions of ingredients, for purity or for strength and durability.

There are different fields in which science technicians can apply project management skills. Agricultural and food science technicians test food and other agricultural products and are involved in food, fibre, and animal research, production, and processing. Control and risk management are important here in executing the tests and experiments, for example, to improve the yield and quality of crops, or the resistance of plants and animals to disease, insects, or other hazards. Quality factors are paramount when food science technicians conduct tests on food additives and preservatives to ensure compliance with government regulations regarding colour, texture, and nutrients.

Biological technicians work with biologists studying living organisms. Many assist scientists who conduct medical research or who work in pharmaceutical companies to help develop and manufacture medicines. Skills in scheduling, especially in incubation periods for the study of the impact on cells, could impact projects, such as exploring and isolating variables for research in living organisms and infectious agents. Biotechnology technicians apply knowledge and execution skills and techniques gained from basic research, including gene splicing and recombinant DNA, to product development. Project management skills are used in collaboration and communication among team members to record and understand the results and progress toward a cure or product.

Other kinds of technicians are chemical technicians who may work in laboratories or factories, using monitoring and control skills in the way they collect and analyze samples. Again, quality assurance is an important factor for most process technicians' work in manufacturing, testing packaging for design, ensuring integrity of materials, and verifying environmental acceptability.

Technicians use a project management skill set to assist in their initiation, planning, and executing tasks, while managing risks with some measure of reporting to determine if their objectives satisfy the constraints of cost, schedule, resource, and quality standards set.

*Examples of some modern projects* and their outcomes can be given as planning and executing the summer and winter Olympic games, building the Great Wall of China, developing the COVID-19 vaccine, constructing the Chernobyl New Safe Confinement, preparation, and publication of a journal or a project management textbook, building the Suez Canal, development of a commercial jet airplane such as Airbus A380 and Boeing 787, developing or modifying software packages, and successfully launching the Hubble Space Telescope.

**Task 1. Consider any occupation and try to enumerate the activities that should be done by the professional. Two important points should be taken into account: (1) their activities regarding the occupation, and (2) their activities regarding the management functions (planning, organizing, motivating, and controlling).**

### **History**

Could the Great Wall of China, the pyramids, or Stonehenge have been built without project management? It is possible to say that the concept of project management has been around since the beginning of history. It has enabled leaders to plan bold and massive projects and manage funding, materials, and labour within a designated time frame.

People have been undertaking projects since the earliest days of organized human activity. The hunting parties of our prehistoric ancestors were projects, for example; they were temporary undertakings directed at the goal of obtaining meat for the community. Large complex projects have also been with us for a long time. The pyramids and the Great Wall of China were in their day of roughly the same dimensions as the Apollo project to send men to the moon. We use the term “project” frequently in our daily conversations. A husband, for example may tell his wife, “My main project for this weekend is to straighten out the garage.” Going hunting, building pyramids, and fixing faucets all share certain features that make them projects.

In late 19th century, in the United States, large-scale government projects were the impetus for making important decisions that became the basis for project management methodology such as the transcontinental railroad, which began construction in the 1860s. Suddenly, business leaders found themselves faced with the daunting task of organizing the manual labour of thousands of workers and the processing and assembly of unprecedented quantities of raw material.

Henry Gantt, studied in great detail the order of operations in work and is most famous for developing the Gantt chart in the 1910s. A Gantt chart (Figure 1 2) is a popular type of bar chart that illustrates a project schedule and has become a common technique for representing the phases and activities of a project so they can be understood by a wide audience. Although now a common charting technique, Gantt charts were considered revolutionary at the time they were introduced. Gantt charts were employed on major infrastructure projects in the United States including the Hoover Dam and the interstate highway system and are still accepted today as important tools in project management.

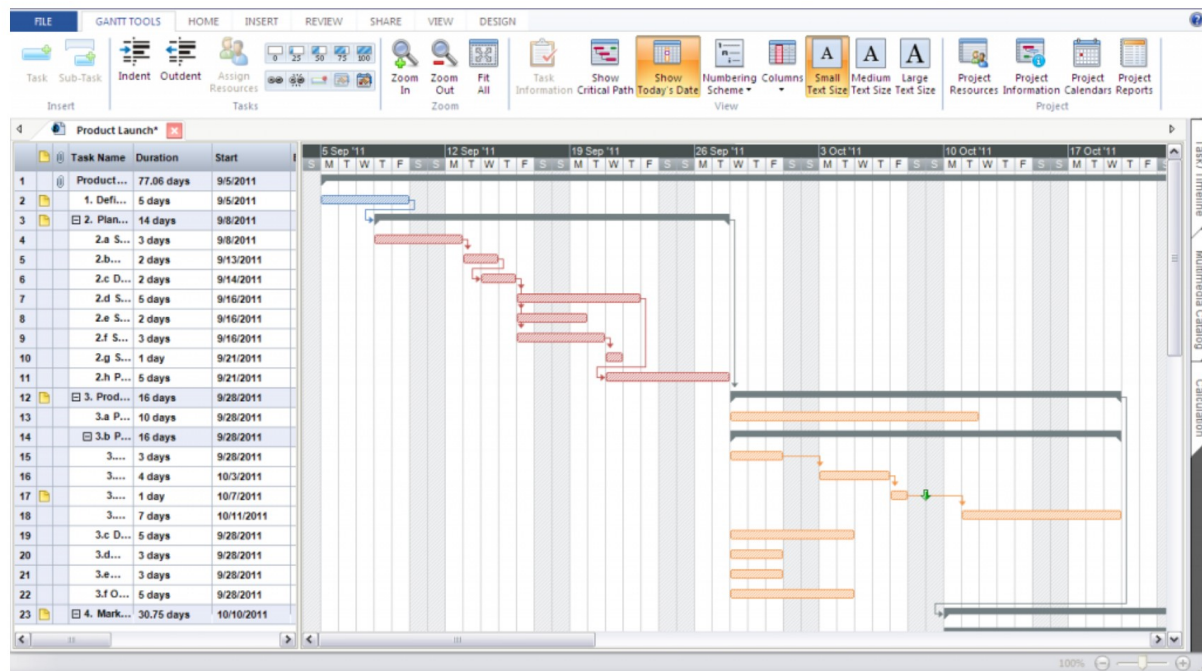


Figure 2. MindView Gantt Chart

By the mid-20th century, projects were managed on an ad hoc basis using mostly Gantt charts and informal techniques and tools. During that time, the Manhattan Project was initiated and its complexity was only possible because of project management methods. The Manhattan Project was the code name given to the Allied effort to develop the first nuclear weapons during World War II. It involved over 30 different project sites in the United States and Canada, and thousands of personnel from the United States, Canada, and the U.K. Born out of a small research program that began in 1939, the Manhattan Project would eventually employ 130,000 people, cost a total of nearly US\$2 billion, and result in the creation of multiple production and research sites operated in secret. The project succeeded in developing and detonating three nuclear weapons in 1945.

The 1950s marked the beginning of the modern project management era. Two mathematical project-scheduling models were developed.

The program evaluation and review technique (PERT) was developed by Booz-Allen and Hamilton as part of the United States Navy's Polaris missile submarine program. PERT is basically a method for analyzing the tasks involved in completing a project, especially the time needed to complete each task, the dependencies among tasks, and the minimum time needed to complete the total project (Figure 3).

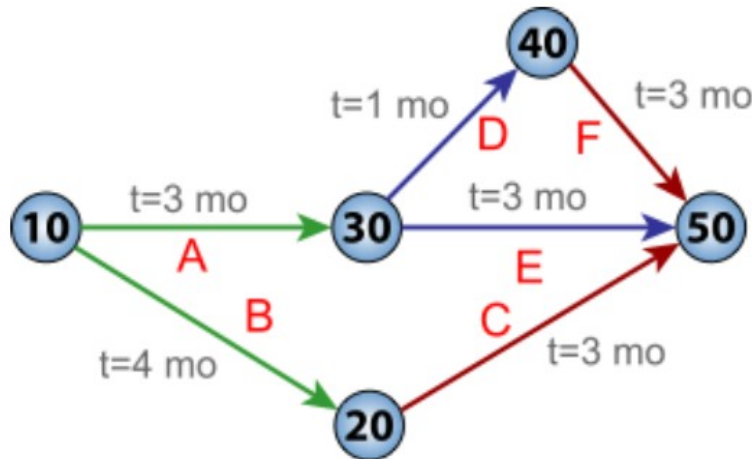


Figure 3. PERT Chart

The critical path method (CPM) was developed in a joint venture by DuPont Corporation and Remington Rand Corporation for managing plant maintenance projects. The critical path determines the float, or schedule flexibility, for each activity by calculating the earliest start date, earliest finish date, latest start date, and latest finish date for each activity. The critical path is generally the longest full path on the project. Any activity with a float time that equals zero is considered a critical path task. CPM can help you figure out how long your complex project will take to complete and which activities are critical, meaning they have to be done on time or else the whole project will take longer. These mathematical techniques quickly spread into many private enterprises.

Project management in its present form began to take root a few decades ago. In the early 1960s, industrial and business organizations began to understand the benefits of organizing work around projects. They understood the critical need to communicate and integrate work across multiple departments and professions.

<https://ims-web.com/a-brief-history-of-project-management/>

### **Project Management Grows in the 19th Century.**

In the late 19th century, the need for more structure in construction, manufacturing, and transportation sectors gave rise to the modern project management tactics we use today.

For example, the creation of the Transcontinental Railroad, corduroy roads, and the rebuilding of the South after the Civil War were all major feats in the history of project management.

The Transcontinental Railroad is considered to be the first, large-scale project management undertaking. The Transcontinental Railroad was a key factor in the industrial development of the United States but people often forget the true scope of this project. It included traversing treacherous terrain and braving dangerous weather conditions to construct a railway and telegraph line.

### **1900 to 1950: The Birth of Modern Project Management and Henry Gantt.**

As the 19th century progressed, business leaders began to face the challenges of labor laws and regulations from the federal government.

Henry Gantt, who played a crucial role in the history of project management, is considered the founding father of modern project management. He developed planning and control techniques to help business leaders succeed and comply with these new regulations.

One example is the creation of the famous **Gantt Chart** to ensure monitoring and control of the project schedule. This basic bar chart shows the phases of a project from inception to completion.

### **1911: Frederic Taylor**

In 1911 Frederic Taylor published a book, “The Principles of Scientific Management,” which was based on his experience in the steel industry. The goal of the book was to give unskilled workers the opportunity to work on new, complex projects by learning skills rapidly through simplicity.

In addition, he identified how many workers would routinely work below capacity through soldiering to ensure future job security. He also identified the need to create incentive-based wage systems and take advantage of time-saving techniques. Many of the principles in Taylor’s book align with the success drivers mentioned in this eBook and are still used by companies today.

### **1950 to 1980s: PERT and CPM**

After WWII, project managers began to follow two mathematical ways of conducting and managing projects.

**Program Evaluation Review Technique**, or PERT, analyzes individual tasks by asserting a minimum amount of time for completion.

**The Critical Path Method**, or CPM, factors in a project’s activities, how long the activities will take to complete, and the relationship between the activities and their end points. However, CPM quickly became riddled with confusion.

### **1980 to 2000: Computers and Project Management**

The rise of the computer played a major role in the history of project management. Computers brought connectivity and communication to the forefront of project management in the 1980s.

As technology grew into the 1990s, the Internet became widely available through dial-up means. Some project management entities created systems for project management purposes, but it was not until the late 19th century when the newfound era of computers and project management truly began.

### **2000 to Present: Rise of Automation and Maturity of Efficiency**

As computer-controlled options and complex algorithms were developed, project managers began to complete more work in less time with fewer errors than ever before.

The growth of the Internet led to web-based project management applications being developed. Today, web-based project management applications can be seen on mobile devices, individual computers, and wide-scale ERP systems.

Although the efficient processes of project management have only been tapped for 150 years, project management has been around since the dawn of mankind. From amazing feats of engineering and construction in ancient times to the complex projects we see today, the history of project management is vast, extensive, and ever-growing.

There are many factors that must work cohesively to achieve successful results in project management.

### **Project Management Grows in the 19th Century.**

#### **1900 to 1950: The Birth of Modern Project Management and Henry Gantt.**

#### **1911: Frederic Taylor**

#### **1950 to 1980s: PERT and CPM**

Program Evaluation Review Technique

The Critical Path Method

#### **1980 to 2000: Computers and Project Management**

#### **2000 to Present: Rise of Automation and Maturity of Efficiency**

## **2. Project Management. Overview and definitions.**

The starting point in discussing how projects should be properly managed is to first understand *what a project is* and, just as importantly, *what it is not*.

### ***Project Characteristics / Attributes***

Projects have several characteristics:

#### ***1. Projects are unique.***

Projects exist to bring about a product or service that hasn't existed before. In this sense, a project is unique. Unique means that this is new and has never been done before. Maybe it's been done in a very similar fashion before but never exactly in this way. For example, Ford Motor Company is in the business of designing and assembling cars. Each model that Ford designs and produces can be considered a project. The models differ from each other in their features and are marketed to people with various needs. An SUV (sport utility vehicle) serves a different purpose and clientele than a luxury car. The design and marketing of these two models are unique projects. However, the actual assembly of the cars is considered an operation (i.e., a repetitive process that is followed for most makes and models).

#### ***2. Projects are temporary in nature and have a definite beginning and ending date.***

A project has outstanding attributes that distinguish it from ongoing work or business operations. Projects are temporary in nature. They are not an everyday business process and have definitive start dates and end dates. This characteristic is important because a large part of the project effort is dedicated to ensuring that the project is completed at the appointed time. To do this, schedules are created showing when tasks should begin and end. Projects can last minutes, hours, days, weeks, months, or years.

#### ***3. Projects are completed when the project goals are achieved or it's determined the project is no longer viable.***

A project is completed when its goals and objectives are accomplished. It is these goals that drive the project, and all the planning and implementation efforts undertaken to achieve them. Sometimes projects end when it is determined that the goals and objectives cannot be accomplished or when the product or service of the project is no longer needed and the project is cancelled.

A project is completed when its goals are accomplished, and its deliverables are approved by the client. Sometimes projects end when it is determined that the goals and objectives cannot be accomplished or when the project outcome is no longer needed. Serious schedule delays or a need to increase the budget substantially might cause the project sponsor to consider cancellation. Some reasons to terminate the projects earlier than their scheduled completion time can be listed as follows:

1. Funding is exhausted or no longer available,
2. Resources (human or physical resources, or services) are no longer available,
3. The external client (funder) or the current or potential customers no longer wants the project completed,
4. The organization changed its strategy or determined a new priority,
5. Management decided to end the project, and
6. A legal cause or a new regulation necessitated the project to end.

It is not uncommon to terminate a project earlier than its completion time without achieving its goals and carrying out all the activities. Nevertheless, these unsuccessful projects are still regarded as projects.

In contrast with projects, *operations are ongoing and repetitive*. They involve work that is continuous without an ending date and with the same processes repeated to produce the same results. The purpose of operations is to keep the organization functioning while the purpose of a project is to meet its goals and conclude. Therefore, operations are ongoing while projects are unique and temporary.

*Example.*

When considering whether or not you have a project on your hands, there are some things to keep in mind. First, is it a project or an ongoing operation? Second, if it is a project, who are the stakeholders? And third, what characteristics distinguish this endeavor as a project?

A successful project is one that meets or exceeds the expectations of the stakeholders.

Consider the following scenario: The vice-president (VP) of marketing approaches you with a fabulous idea. (Obviously it must be “fabulous” because he thought of it.) He wants to set up kiosks in local grocery stores as mini-offices. These offices will offer customers the ability to sign up for car and home insurance services as well as make their bill payments. He believes that the exposure in grocery stores will increase awareness of the company’s offerings. He told you that senior management has already cleared the project, and he’ll dedicate as many resources to this as he can. He wants the new kiosks in place in 12 selected stores in a major city by the end of the year. Finally, he has assigned you to head up this project.

Your first question should be, “Is it a project?” This may seem elementary, but confusing projects with ongoing operations happens often. **Projects are temporary in nature, have definite start and end dates, result in the creation of a unique product or service, and are completed when their goals and objectives have been met and signed off by the stakeholders.**



Using these criteria, let's examine the assignment from the VP of marketing to determine if it is a project:

Is it unique? Yes, because the kiosks don't exist in the local grocery stores. This is a new way of offering the company's services to its customer base. While the service the company is offering isn't new, the way it is presenting its services is.

Does the product have a limited timeframe? Yes, the start date of this project is today, and the end date is the end of next year. It is a temporary endeavor.

Is there a way to determine when the project is completed? Yes, the kiosks will be installed and the services will be offered from them. Once all the kiosks are installed and operating, the project will come to a close.

Is there a way to determine stakeholder satisfaction? Yes, the expectations of the stakeholders will be documented in the form of requirements during the planning processes. These requirements will be compared to the finished product to determine if it meets the expectations of the stakeholder.

If the answer is «Yes» to all these questions, then we have a project.

**Task 2. Compare Business Process Management (BPM) / ongoing processes and Project Management. Mind the main differences and how BPM and Project Management can be interrelated.**

(<https://aprika.com/blog/whats-the-difference-between-project-management-and-process-management/>

<https://www.kpifire.com/project-management/projects-vs-processes-what-is-the-difference/>)

### ***Definition of a Project***

There are many written definitions of a project. All of them contain the key elements described above. For those looking for a formal definition of a project, the *Project Management Institute (PMI)* defines a project as **a temporary endeavor undertaken to create a unique product, service, or result.** The temporary nature of projects indicates *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.

### ***The Process of Project Management***

You've determined that you have a project. What now? The notes you scribbled down on the back of the napkin at lunch are a start, but not exactly good project management practice. Too often, organizations follow Nike's advice when it comes to managing projects when they "just do it." An assignment is made, and the project

team members *jump directly into the development of the product* or service requested. In the end, *the delivered product doesn't meet the expectations of the customer*. Unfortunately, many projects follow this poorly constructed path, and that is a primary contributor to a large percentage of projects not meeting their original objectives, as defined by performance, schedule, and budget.

In the United States, more than \$250 billion is spent each year on information technology (IT) application development in approximately 175,000 projects. The Standish Group (a Boston-based leader in project and value performance research) released the summary version of their 2009 CHAOS Report that tracks project failure rates across a broad range of companies and industries.

Jim Johnson, chairman of the Standish Group, has stated that “this year’s results show a marked decrease in project success rates, with 32% of all projects succeeding which are delivered on time, on budget, with required features and functions, 44% were challenged-which are late, over budget, and/or with less than the required features and functions and 24% failed which are cancelled prior to completion or delivered and never used.”

When are companies going to stop wasting billions of dollars on failed projects? The vast majority of this waste is completely avoidable: ***simply get the right business needs (requirements) understood early in the process and ensure that project management techniques are applied and followed, and the project activities are monitored.***

Applying good project management discipline is the way to help reduce the risks. Having good project management skills does not completely eliminate problems, risks, or surprises. The value of good project management is that you have standard processes in place to deal with all contingencies.

***Project management is the application of knowledge, skills, tools, and techniques applied to project activities in order to meet the project requirements.***

***Project management is a process that includes planning, putting the project plan into action, and measuring progress and performance.***

Managing a project includes identifying your project’s requirements and writing down what everyone needs from the project. ***What are the objectives for your project? When everyone understands the goal, it’s much easier to keep them all on the right path.*** Make sure you set goals that everyone agrees on to avoid team conflicts later on. Understanding and addressing the needs of everyone affected by the project means the end result of your project is far more likely to satisfy your stakeholders. Last but not least, as project manager, you will also be balancing the many competing project constraints.

**Task 3. Compare the definitions of Project Management given above. Outline the characteristics that each definition focuses on Project Management.**

*Seminar.* Case Study 1, 2 (Oguz, p.13-15)

Посилання на презентацію

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