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Department of Collegiate and Technical Education

Introduction (Unit 1)

Project Management Skills (II Sem.)

WELCOME

UNIT-01

INTRODUCTION

PROJECT MANAGEMENT SKILLS - 20PM01T

Class # 01

- ❑ Define Project Management
- ❑ Meaning of project with Triple constraint
- ❑ Factors that initiate a project
- ❑ Various Definition of project

INTRODUCTION

- Projects are the building blocks to meet the organizations objectives.

PROJECT MANAGEMENT

- Project management is the process of leading the work of a team to achieve goals and meet success criteria at a specified time

The basis logic behind on all these projects are

- Investment of Resources for a specific objective
- A cause of irreversible change.

The Project Management Triple constraint

- Time : Each project has a fixed period of time; it has a start and end date
- Scope : Each project has unique scope, no project are similar and differs in output and work
- Cost : Cost of each project should be carefully determined, the completion of project depend on availability of funds

Scope

Mangalore

Bangalore

No project are similar and differs in output and work

Cost

The completion of project depend on availability of funds

FACTORS THAT INITIATE A PROJECT (STRATEGIC CONSIDERATIONS):

1. Market need: Competition in market
2. Business need: To reduce cost
3. Technological advancement: automation
4. Customer request: on demand need some changes
5. Legal requirements: new policies that lead to product design change

6.Social needs: Building a hospital, buildings or government projects

MEANING OF PROJECT

- It is scientifically right man for the right work at the right time work plan devised to achieve a specific objective within a certain set time frame designed

Meaning of project

- It is a blue print for action oriented activities of an organization.
- A project reflects the plan for action in its totality
- A holistic perspective of chain of action plan put in a sequential manner.
- The project has beginning, middle and an end

Example

- ✓ Cement Projects
- ✓ Manufacturing projects
- ✓ Power projects
- ✓ Refinery Projects
- ✓ Health Projects
- ✓ Educational projects
- ✓ Social projects
- ✓ Construction Projects ,etc.
- ✓ Information Technology Projects

What is Project?

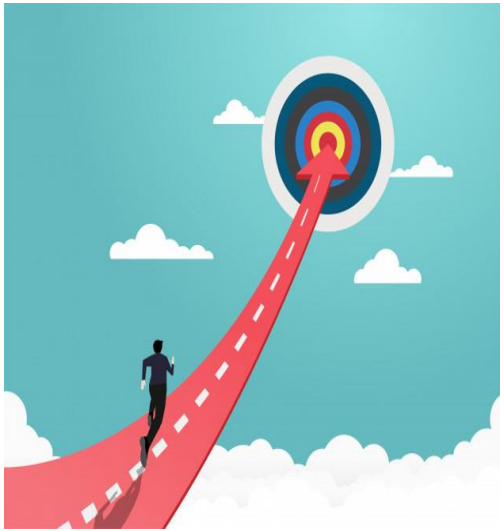
PresenterMedia

- Project is a temporary endeavour (undertaking or goal)
- Temporary – Has definite start and definite end
- Unique – one of a kind

Dream

DEFINITION AND NO CHANGE MODE

❑A project is a one-shot, time limited, goal directed, manor undertaking, requiring the commitment of varied skills and resources.



Various definition of project

- Project is a combination of human and non-human resources pooled together on a temporary organization to achieve a specific purpose.

Various definition of project

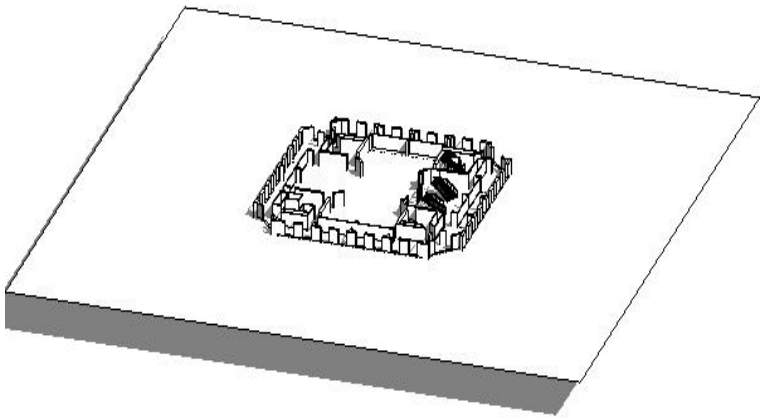
- The purpose and the fact of activities which can achieve that purpose distinguish one project from another

Various definition of project

❖A specific activity with a specific starting point and a specific ending point intended to accomplish a specific objective.

FEATURES OF A PROJECT

- A project has a fixed set of objectives.
- It has a specific life span.
- Project has a separate entity and normally entrusted to one responsibility center.
- Project evolves from a dedicated team of work force.
- Project has a life cycle reflected by growth, maturity and decline.



- Every project is unique by itself. No two projects are exactly similar.
- Change is an inherent feature in any project throughout it’s life.
- Project is based on successive principle and hence it is difficult to learn fully the end results at any stage.
- A project works for a specific set of goals with the complex set of diversified activities.

- High level of sub-contraction of work can be done in a project. Well qualified professionals, efficiently execute, the complex mega project.
- Every project has risk and uncertainty associated with it.
- Project needs prefeasibility and appraisal studies. So that the sponsors can make it commercially viable.

TYPES OF PROJECTS

- Much of what the project will comprise and consequently its management will depend on the category it belongs to.
- The location, type technology, **size, scope and speed** are normally the factors which determine the effort needed in executing a project.
- Classification of project helps in graphically expressing and highlighting the essential features

➢ *Normal Projects*

- **Adequate time is** allowed for implementation.
- All the phases in a project are allowed to take their normal time, as measured previously
- Minimum **requirement of capital.**
- **No sacrifice in terms of quality**.

➢ *Crash Projects*

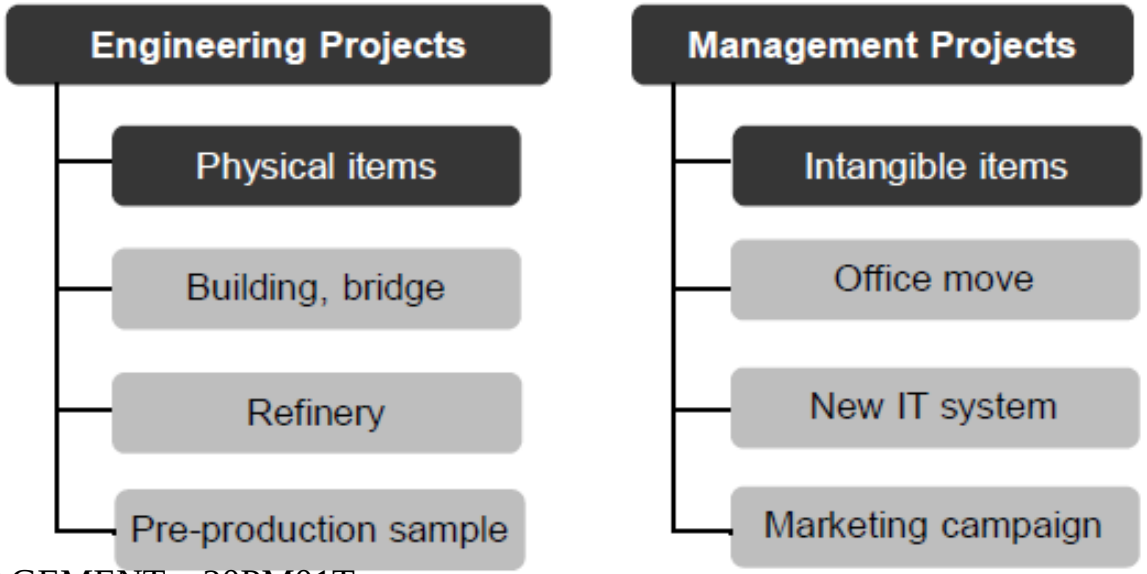
- ❖ Requires **additional costs to gain time**.
- ❖ **Maximum overlapping of phases** is encouraged.
- ❖ Simultaneous work by subcontracting is the way out

➢ *Disaster Projects*

- These are projects, undertaken, due to **unexpected nature's calamities** or fury like floods results in rehabilitation of dwelling houses for affected people.
- Anything needed to gain time is allowed in these projects. Round the clock work is done at the construction site. Capital cost will go up very high. Project time will get drastically reduced.

Projects in general are classified on several basis as given the following illustrative list.

- United Nations Asian and Pacific Development Institute
- Engineering and Management projects have sub classification as given below:



BENEFITS OF PROJECT MANAGEMENT

- Minimizing the need for continuous reporting and put maximum auto-pilot work atmosphere.
- Identification of time limits for scheduling.
- Identification of a methodology for trade-off analysis.

Cont…

- Measurement of accomplishment against plans. This ensures continuous review.
- Early identification of problems so that corrective action may follow. This results in hassle free finishing.
- Improved estimating capability for future planning, with latest technology.
- Knowing when objectives cannot be met or will be exceeded. Time over-run and cost-overrun will minimized.

OBSTACLES IN PROJECT MANAGEMENT

- Project complexities
- Execution of customer's special requirement might result time delay and co-ordination with many agencies.
- Organization restructuring is a typical task

Cont..

- Project risks, coupled with statutory changes are nightmare for the project manager.
- Changes in technology needs highly qualified team
- Forward planning and pricing.

PROJECT MANAGEMENT – A PROFESSION

- Project management has been evolved as a distinct field ever since the Second World War.It has got elevation in the recent times.
- Certified project management professionals are recruited to monitor and execute world level project.
- Novelty is the hallmark of every project, hence it should exhibit energetic and dynamism.

- This requires professional approach in conceiving, implementing and controlling projects.
- Though the functional management and project management are related, the degree of professional approach is highly essential for the efficient management of the project.
- The project management is mainly driven by intellectual operation and skilled and mechanical operations.
- Project management is covered by the matrix form of organization, structure where all roles are defined according to a combination rather than functional specialization.

PROJECT MANAGER AND HIS ROLE

- Project Manager is a pivot where the entire team accelerates its activities.
- This is to signify a person who has the overall control of the project and shoulder responsibilities for its execution and performance.
- Therefore, he is thoroughly involved in planning the work and monitoring, directing and leading the participants and seeks to reach the project goal in time-cost-quality conundrum.

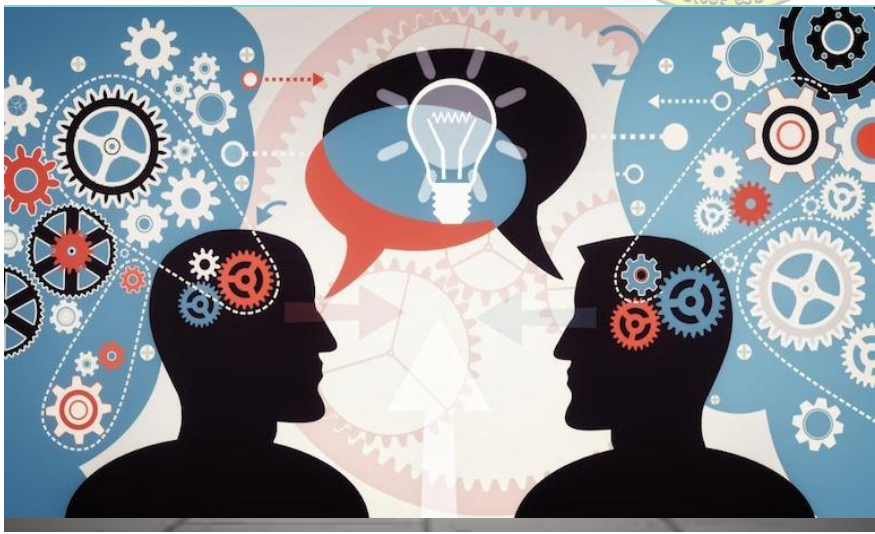
Cont..

- The Project Manager is either a specialist or a person having predominantly technical background with sufficient experience, exposure expertise on multifaceted, multi dimensional and multi disciplinary projects.

Cont..

- It is well evident from the monumental constructions and projects that have been around us since hay days, that the role of a project manager is quite distinct and demands an all-round performance.

An ideal candidate of project manager ship should have some prominent personal characteristics.



- Flexible and adaptable to certain circumstances
- Preference for significant initiative and to evolve as a best leader
- Aggressiveness, confidence, persuasiveness, verbal fluency; ultra specialist in ace communication

- Ambition, activity, forcefulness
- Effectiveness as integrator of project personnel
- Broad scope of personal interests; A multi-faceted person having diverse interest.

Cont..

- Poised with enthusiasm, in agitation, spontaneity
- Able or willing to devote most of his time to planning and controlling,
- Able to identify problems ahead
- Willing to make decisions that are acceptable to the team
- Able to maintain a proper balance in the use of time

PROJECT CONSULTANTS

- Project consultant who is an embodiment of knowledge is an asset to every organization.
- For any developing country, project management holds the key for development.
- Without efficient project management neither **cost control nor time control** is possible.

Cont..

- The basic ingredient of successful project management is a happy integration of three factor, **appropriate estimate, competent contractor and effective project management**.
- The other important ingredient of successful project management is an **effective management team.**

Cont..

- Consultants provide **guidance as well as direction** to the projects. From the formulation state to the completion and post project evaluation state, consultant's services are essential and are also available in myriad manner.

Cont..

- the consultant is the **part of the project management team**, though as a paid member on contractual terms and conditions.
- When a project is taken up for execution, the first task would be to **assess the requirements of the services of an outside consultant or the in-house expertise** available would be sufficient for the project.

NEED OF CONSULTANTS

- When a project with new technology is undertaken.
- When the in-house consultant is incapable of meeting the requirement of the project.
- When there is no in-house facility available in the organization
- When the project is executed on the basis of imported technology and know how to avail the advantages of expertise available with the outside consultants.

Consultants may be

- **In-house consultants**
- **Outside consultants**:***Indigenous(Native,National).Foreign consultants***

✓ When the jobs cannot be done by the in-house consultants, the appointment of outside consultants would become unavoidable.

✓ While assigning jobs to the outside consultants the following steps should be carried out effectively:

✓ Approval from the competent authority to get the specialist's service

- ✓ Decide about indigenous or foreign consultant, depending on the scope of the project
- ✓ Preparation of list of consultants
- ✓ Scope of services of consultants
- ✓ Preparation of tender documents
- ✓ Inviting offers from leading consultants
- ✓ Evaluation of offers
- ✓ Award of contract to the consultant

JOB OF CONSULTANTS

Main jobs of the consultants are

- Preparation of feasibility report
- Techno-economic report
- Preparation of detailed project report
- Detailed engineering and consultancy services
- Detailed commercial viability
- Project monitoring and control
- Supervision of erection and commissioning of report
- Provide pre and post commissioning services

WHAT IS OPERATION?

- Operation is an **ongoing work efforts**
- The objective of an ongoing operation is to sustain the business.
- It is repetitive. Once objective is reached adopt a new set of objectives and continue the work.

DIFFERENCE BETWEEN PROJECT AND OPERATION

Feature	Projects	Operations
Key Similarities	Planned, executed, and controlled Performed by people	Planned, executed, and controlled Performed by people
	Resource constrained	Resource constrained
Purpose	Attain objectives and terminate	Sustain the organization
Time	Temporary	Ongoing
	Definite beginning and end points	
Outcome	Unique product, service, or result	Non-unique product, service, or result
People	Dynamic, temporary teams formed to meet project needs Generally not aligned with organizational structure	Functional teams generally aligned with organizational structure
Authority of Manager	Varies by organizational structure Generally minimal, if any, direct line authority	Generally formal, direct line authority

WHAT IS PROCESS IN PROJECT MANAGEMENT AND PROCESS GROUPS?

Process

A Series of actions bringing about a result

Project Management Process	Product Oriented Process
• Describe, organise and complete the work of the project • The purpose is to initiate, plan, execute, monitor and control, and close a project • It is common to all projects	• Specify and create the Project's Product • Defined by the product life cycle • It varies by application area

- Is the application of **knowledge, skills, tools and techniques to project activities to meet the project objectives**
- This is accomplished through the application and integration of the five project management processes groups (**initiating, planning, executing, monitoring and controlling and closing**) and 9 knowledge areas,
- The Project Manager is the person responsible for accomplishing the project objectives

The Project Management Institute (PMI) defines project management as a set of five process groups and nine knowledge areas

Sl No	Process Group	Description per PMBOK 2000 Edition	Common Terms
1	Initiating	Authorizing the project or phase	"preliminary planning"
			"kicking off"
2	Planning	Defining and refining objectives of the project and selecting the best course of action to attain those objectives	"defining"
			"developing the plan"
			"setting the stage"
3	Executing	Coordinating the people and resources to implement the plan	"making it happen"
			"getting it done"
			"coordinating"
4	Controlling	Ensuring project objectives are met by monitoring and measuring progress regularly to identify variances from the plan so that corrective actions can be taken	"tracking progress"
			"keeping on course"
5	Closing	Formalizing acceptance of project or phase and bringing to an orderly end	"client acceptance"
			"transition"
			"closeout"

Description of PMBOK Knowledge Areas

Sl No	Knowledge Area	Description per PMBOK 2000 Edition	Common Deliverables
1	Project Integration Management	Processes required to ensure the elements of the project are properly coordinated	Project Charter Project Plan Change Requests Work Results
2	Project Scope Management	Processes required to ensure that project includes all the work that is required and only the work that is required to complete the project successfully	Scope Statement Work Breakdown Structure Formal Acceptance
3	Project Time Management	Processes required to ensure timely completion of the project	Network Diagram Task Estimates Project Schedule
4	Project Cost Management	Processes required to ensure the project is completed within the approved budget	Resource Requirements Cost Estimates Project Budget
5	Project Quality Management	Processes required to ensure the project will satisfy the needs for which it was undertaken	Quality Management Plan Checklists Quality Reviews

Sl no	Knowledge Area	Description per PMBOK 2000 Edition	Common Deliverables
6	Project Human Resources Management	Processes required to make the most effective use of the people involved with the project	Role and Responsibility, Matrix ,Organization Chart, Performance Evaluations
7	Project Communications Management	Processes required to ensure the timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information	Communication Plan Status Reports Presentations.Lessons Learned
8	Project Risk Management	Processes concerned with identifying, analyzing, and responding to project risk.	Risk Management Plan Risk Response Plan Risk Log
9	Project Procurement Management	Processes required to acquire goods and services outside the performing organization	Procurement ,PlanStatement of Work Proposals, Contracts

WHAT IS SCOPE?

- The scope of the project determines the **boundaries of the project**
- The scope specifies **what features/ a characteristic of the project product is included and what is not include**

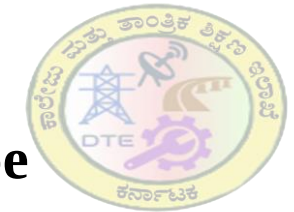
In project management there are actually two different scope

- Product scope
- Project scope

Product scope

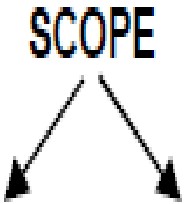
- Which is what the **end result of the project will create**?
- The product scope is what **customers focus** on- what they are envisioning the firm to create
- The product scope **describes the thing or service that will exist as a result of undertaking the project**

project scope



- Project scope describes **all the work to create the product scope**
- It includes all of the work and only the required work, to complete the project deliverable
- Project manager and the client prepares project scope and deliverables
- The project manager then prepare a **Project Overview Statement**(POS) based on the list of deliverables
- The POS will be sent to the firm's top management for approval
- The Project manager prepares a **Project Definition Statement** with his team members that can be used as **a reference in executing the project**

DIFFERENCE BETWEEN PROJECT SCOPE and PRODUCT SCOPE



Product Scope	Project Scope
The features and functions that characterise a product/service/result. Completion of the product scope is measured against Product requirements	The work that must be done achieve Product Scope. Completion of the project scope is measured against The Project management plan