

project : Meaning ; features and categories :-

• Meaning of a project :-

project starts from scratch with a definite mission, generates activities involving a variety of human and non-human resources, all directed towards fulfillment of the mission and stops once the mission is fulfilled.

According to the project management institute, USA "a project is a one-set, time-period, goal-directed, major undertaking requiring the commitment of varied skills and resources".

It also describes a project as "a combination of human and non-human resources pooled together in a temporary organisation to achieve a specific purpose". The purpose and set of activities which can achieve that purpose distinguish one project from another.

characteristic features of a project :-

- i) objectives :- when we do any project, we have to set an objective (goal).
- ii) life span :- It's mean how long a project will take time to finish that is finishing time may be 1 year or 2 year or months.
- iii) team work :- we can also do any project individually or in a team with subdivided goals.
- iv) uniqueness :- project will be contain some unique idea.

- iv) Life-cycle!:- A project has a life-cycle reflected by growth, maturity and decay. It has naturally a learning component.
- v) Risk uniqueness!:- Each and every project contain a Risk.
- vi) uniqueness!:- project will be contain some unique idea.
- vii) Cost :- May be it will contain low cost project depending upon the team or individual.
- viii) single entity!:- A project is one entity and is normally entrusted to on responsibility centre while the participants in the project are many.
- ix) successive principle!:- what is going to happen during the life cycle of a project is not fully known at any stage. The details get finalised successively with the passage of time. More is known about a project when it enters the construction phase than what was known say, during the detailed engineering phase.
- x) Made to order!:- A project is always made to the order of its customer. The customer stipulates various requirements and puts constraints within which the project must be executed.
- xi) unity in diversity!:- A project is a complex set of thousands of varieties. The varieties are in terms of technology, equipment and materials, Machinery and people, work culture

Categories of project:-

The following figure shows the various categories into which industrial projects may be fitted :-

i) Normal projects:-

- These projects are completed in the given time.
- All the stages in this project are allowed to take their normal time as planned previously.
- Low or Minimum cost/capital is required.
- No sacrifice in quality.
- Eg:- construction of a house, construction of small bridge etc.

ii) Crash project:-

- Requires additional cost to gain time.
- Simultaneous work by sub-contracting.
- Minimum overlapping of phases (stages) is encouraged.
- Saving in time is normally achieved in procurement and construction where the time is brought from the vendors and contractors by paying extra money to them.
- e.g:- construction of building, construction of highways etc.

iii) Disaster projects:-

- These projects are undertaken due to unexpected natural calamities such as flood, earthquake etc.
- Anything can be needed to gain time (huge or massive investment)
- Round the clock work is done at the construction sites.
- Eg:- Repair of dam in case of damage due to natural calamities, Repair of bridge or any other disaster.

• project management skills:- It is the ability of a person which is used to manage the resources and other products to optimise that limited resource.

• Types of project:-

(i) Manufacturing project:- It involves the production of vehicles, ships, aircrafts and part of machinery.

(ii) construction project:- In this project, we study about the building, bridge, roads, ~~tun~~ tunnels etc.

(iii) Management project:- In this project, we include the organisation work without producing a tangible product.

eg:- NEP, Sukanya Samridhi Yojna.

(iv) Research project:- In this project we study about new (no earlier data) schemes, new tools and techniques.

(v) Railway projects

(vi) Health and educational projects.

(vii) IT projects.

(viii) Automotive Manufacturing project

Benefits of project management:-

- It improves the productivity and reduces the cost and work load.
- It improves the collaboration.
- It improves the customer satisfaction.
- It helps in the improvement of performance of the worker.
- Improved estimating capability for future planning.
- Early identification of start and end time (scheduling)
- Minimises the need for continuous ~~rep~~ reporting and encourage maximum auto-pilot work.
- Improve productivity and quality of work.
- Boost bottom line of production activities.

obstacles in project Management:-

- unclear goals and responsibilities.
- unprepared team.
- limited resources e.g - raw materials, labour and money shortage.
- poor planning
- lack of communication.
- lack of knowledge/expertise.
- poor organisational structure.
- changes in technology.
- unexpected's technical problems.
- poor budget estimation.
- poor understanding among coworkers and project team.

- # Role of project manager:-
- planning the activities
 - organising a project team to perform work / task.
 - to control the time management.
 - to monitor the progress.
 - establish a regular meeting.
 - Managing reports and necessary documentation.
 - project Manager plays a major role in the entire project team and accelerates its activities.
 - He holds the overall control of the project, and is responsible for its finishing.
 - He is responsible for project performance.
 - He is involved in planning the work, monitoring, directing and leading the team members.
 - He must complete the project goal within the given time, cost, quality.
 - He should ensure timely availability of the resources (time, money, materials, machines, man power etc)

Project Management:-

It is the application of knowledge, skills, tools and techniques in a project activities to meet the project requirement.

Consultants:-

Consultant provides the guidances as well as direction of the project.

Need of consultant's role of consultant:-

- i) when a project with new technology is undertaken.
- ii) when there is no facility available in the organisation.
- iii) when the project is executed based on imported technology.
- iv) when the in house consultant is incapable of meeting the requirement of the project.

Roles / functions of consultants:-

- i) Consultants provide guidance and direction to the project planning, completion and post project evaluation.
- ii) They provide the advantage of expertise.
- iii) They assist the project manager or the project team to achieve cost control and time control.
- iv) They fill the gap when there is no in-house expert available.
- v) They provide the assistance especially for projects with new technology or imported technology.
- vi) They assist to prepare appropriate estimate and effective and efficient management of the resources.

- vii) Assisting the agency in suitable site investigation and sourcing of materials.
- viii) Assisting the agency in selecting the suitable contractor.
- ix) checking the quality of work, supervision control, testing, monitoring and progress reporting, checking measurement and of bills.

project management a profession :-

- i) A profession is paid occupation, which requires set of knowledge and skills through formal education or practical experience.
- ii) project management team are hired to execute world level project.
- iii) It requires a professionals approach.
- iv) It is run by logical operations.
- v) It requires skills and mechanical operations.
- vi) A project manager is paid and is responsible for end result and he is also responsible to manage the project team.

operation :-

operations are the ongoing execution of activities and they follow an organization's procedures to produce the same result or a repetitive service.

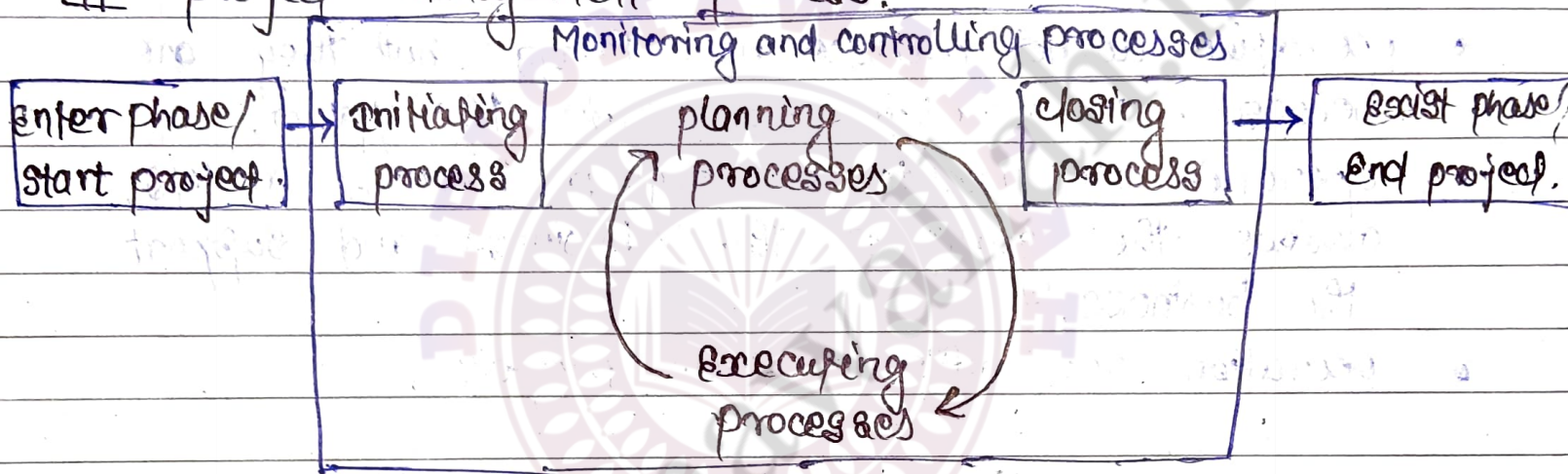
- operations are permanent in nature.
eg:- production, Manufacturing and accounting.
- operations do not produce new things, but they are necessary to maintain and sustain the system.
- operations are used to run regular business models, achieve the goals of the business and support the business.
- operations are different from projects.

Difference betⁿ project and operation :-

<u>project</u>	<u>operation</u>
i) It is a temporary organisation	i) It is a permanent organisation and Repetitive.
ii) unique	ii) Continuous cycle.
iii) Developing a new system	iii) System already exists, maintaining and sustaining.
iv) performance, cost and time are uncertain.	iv) performance, cost and time - are known.
v) unexpected output & inputs.	v) expected outputs & inputs.
vi) More risks in projects as they are usually done for the first time.	vi) fewer risk as they are repeated many times.

- vii) when objectives are achieved the project ends
- viii) create new product, service and or process
- vii) Multiple objectives to be achieved again and again.
- viii) product, service or process already created and is in use.

project management process!-



- it is the application of knowledge, skills, tools and techniques to project activities to meet to project objectives.
- This involves the application of five project management process such as initiating, planning, executing, monitoring and controlling and closing.
- The project Manager is the person responsible for finishing the project objectives.

project scope:-

- project scope defines the sum of total outputs, outcomes, benefits and the work required to complete a project.
eg:- scope is to develop website using HTML, ASP, ~~Net~~ Net and flash media or using wordpress.com.
- project scopes describes the amount of work or effort required to reach the output or to produce a product.

project objective:-

- objectives define predetermined results towards which effort is directed.
eg:- objectives is to build a website.
- project objective describe only the required results or expected outcomes.