

## Meaning of PERT

Program (Project) Evaluation and Review Technique (PERT) is an activity to understand the planning, arranging, scheduling, coordinating, and governing of a project. This program helps to understand the technique of a study taken to complete a project, identify the least and minimum time is taken to complete the whole project. PERT was developed in the 1950s, with the aim to the cost and time of a project.

In PERT, the project is segregated into events and activities. After discovering a proper sequence, the network is built. It is then the time for each task is calculated, and a path is regulated.

## Meaning of CPM

Critical Path Method (CPM) developed in the 1950s is an algorithm needed for planning, arranging, scheduling, coordinating, and governing of a project. It is presumed that in this method the activity time is specified and fixed. It is used to calculate the quickest and latest start time for each task.

CPM helps to distinguish the critical and non-critical tasks, reduces the time and bypass the queue formation in the process. It is essential to identify critical activity because if any activity is hindered, it will clutter the whole process.

In this process, first, the list of all the activity is prepared, followed by the time required by each of these activities. Then the dependency connecting the activities is decided. Here, the series of the activity in a network is defined as a path.

## PERT vs CPM

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**BasisPERTCPMFull FormFull form of PERT- Program (Project) Evaluation and Review TechniqueFull Form of CPM-Critical Path MethodMeaningPERT is a technique, used to manage the uncertain task of a project.CPM is a statistical technique used to manage the activities of a project.MethodTo control timeTo control cost and timeProgressResearch and development projectConstruction projectManageUnpredictable activitiesPredictable activitiesAppropriate forResearch & Development projectNon-research project. Example-ship building, civil constructi**

### Advantages of PERT

**Planning for Large Project-** It is used in scheduling large project by the project manager

**Visibility of Critical Path-** It is used to show the critical path in a clear way. The critical path those paths were activities cannot be paused under any conditions.

**Analysis of Activity-** This will provide the management with the progress report and the completion of the project including the budget.

**Coordination Ability-**This helps in improving the communication within different departments of the company.

**The What-if Analysis** This analysis benefits the company to recognize the risk linked with any projects.

### Disadvantages of PERT

**Time Focused Method-** PERT is a time-bound method, so finishing project or activities on time is of high importance. If it does not happen than a problem can arise

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**Subjective Analysis-** Here, the project activities are recognized according to the available data. However, it is difficult in PEERT projects as it is applicable for the only new project are which is not repetitive in nature, therefore, the collection of information to be subjective in nature.

**Prediction Inaccuracy-** PERT does not have any past records for a framework of a project, so prediction comes into play. The project will be ruined if the prediction is not accurate.

**Expensive-** Too expensive in terms of time consumed, research, prediction, and resources utilized.

### Advantages of CPM

Provides an outline for long term coordination and planning of a project.

Recognizes critical activities

Easy to plan, schedule, and control project

It improves productivity

Manages the resource needed

### Disadvantages of CPM

For beginners its difficult to understand

Software too expensive

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Sometimes, to structure CPM is too time-consuming

It cannot control and form the schedule of a person involved in the project

Allocation of resources cannot be monitored properly