

Project management can be understood as a systematic way of planning, scheduling, executing, monitoring, controlling the different aspects of the project, so as to attain the goal made at the time of project formulation. PERT and CPM are the two network-based project management techniques, which exhibit the flow and sequence of the activities and events. **Program (Project) Management and Review Technique (PERT)** is appropriate for the projects where the time needed to complete different activities are not known.

On the other hand, **the Critical Path Method or CPM** is apt for the projects which are recurring in nature.

The two scheduling methods use a common approach for designing the network and for ascertaining its critical path. They are used in the successful completion of a project and hence used in conjunction with each other. Nevertheless, the truth is that CPM is different from PERT in a way that the latter concentrates on time while the former stresses on the time-cost trade-off. In the same manner, there are many differences between PERT and CPM, which we are going to discuss in this article.

Content: PERT Vs CPM

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Comparison Chart

BASIS FOR COMPARISON	PERT	CPM
Meaning	PERT is a project management technique, used to manage uncertain activities of a project.	CPM is a statistical technique of project management that manages well defined activities of a project.
What is it?	A technique of planning and control of time.	A method to control cost and time.
Orientation	Event-oriented	Activity-oriented
Evolution	Evolved as Research & Development project	Evolved as Construction project
Model	Probabilistic Model	Deterministic Model

BASIS FOR COMPARISON	PERT	CPM
Focuses on	Time	Time-cost trade-off
Estimates	Three time estimates	One time estimate
Appropriate for	High precision time estimate	Reasonable time estimate
Management of	Unpredictable Activities	Predictable activities
Nature of jobs	Non-repetitive nature	Repetitive nature
Critical and Non-critical activities	No differentiation	Differentiated
Suitable for	Research and Development Project	Non-research projects like civil construction, ship building etc.
Crashing concept	Not Applicable	Applicable

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1. A simulation model that incorporates uncertain parameters, samples thousands of possible cases, and summarizes the outcomes for you with charts and statistics.
2. A model that explores possible decisions using multiple simulations that automatically vary one or more controllable parameters, and summarizes the outcomes for you *across simulations* with charts and graphs.
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- Download our Solver User Guides -- take a close look at Risk Solver Platform, its subset products, and its capabilities for simulation and optimization
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