

**NAME**

Project Management Triangle

**SOURCE**

Public Domain

## INTRODUCTION

The project management triangle (called also *Triple Constraint* or the *Iron Triangle*) is a model of the constraints of project management. It is a graphic aid where the three attributes (scope, time and cost) show on the corners of the triangle to demonstrate their opposition. The project management triangle is useful to help with intentionally choosing project biases, or analysing the goals of a project. It is used to illustrate that project management success is measured by the project team's ability to manage the project, so that the expected results are produced while managing time and cost. For more information about project management, have a look at the "Plan" stage in the Shape resource.



## NOTES

Like anything, projects need to be performed and delivered under certain constraints. Traditionally, these constraints have been listed as "scope", "time", and "cost", also referred to as the "project management triangle". Each side of the triangle represents a constraint, and one side of the triangle cannot be changed without affecting the others. A further refinement of the constraints is "quality", separately from scope.

Usually project managers find themselves in a situation where they are trying to choose between a fast, good and cheap solution. The learning from this tool is that you have to prioritise two, you cannot have them all.

In this case, fast refers to the time required to deliver the product, good refers to the quality of the final product, and cheap refers to the total cost of designing and building the solution. This triangle reflects the fact that the three properties of a project are interrelated, and it is not possible to optimise all three – one will always suffer. In other words you have three options:

- Design something quickly and to a high standard, at a relatively high cost
- Design something quickly and cheaply, but with relatively low quality
- Design something with high quality and cheaply, taking a relatively long time

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## 1. Time

A project's activities can either take shorter or longer amount of time to complete. Completion of tasks depends on a number of factors such as the number of people working on the project, experience, skills, etc.

Time is a crucial yet uncontrollable factor. On the other hand, failure to meet the deadline on a project can create adverse effects. Most often, the main reason for organisations to fail in terms of time is due to lack of resources.

## 2. Cost

It's imperative for both the project manager and the organization to have an estimation of cost when undertaking a project. Budgets will ensure that project is developed or implemented within a certain cost bracket.

Sometimes, project managers have to allocate additional resources in order to meet the deadlines with a penalty of additional project costs.

## 3. Scope

Scope looks at the outcome of the project undertaken. This consists of a list of deliverables, which need to be addressed by the project team.

A successful project manager will know to manage both the scope of the project and any change in scope which impacts time and cost.

## 4. Quality

Quality is not a part of the project management triangle, but it is the ultimate objective of every delivery. Hence, the project management triangle represents implies quality.

Many project managers are under the notion that 'high quality comes with high cost', which to some extent is true. Using low quality resources to accomplish project deadlines does not ensure success of the overall project. Like the scope, quality is also an important deliverable for the project.

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## USEFUL LINKS

- [http://en.wikipedia.org/wiki/Project\\_management\\_triangle](http://en.wikipedia.org/wiki/Project_management_triangle)
- [http://www.tutorialspoint.com/management\\_concepts/project\\_management\\_triangle.htm](http://www.tutorialspoint.com/management_concepts/project_management_triangle.htm)