

23 Managing Changes

No project of any significant size can be expected to run from start to finish without at least one change. The exception to this rule might exist as a project manager's dream of Utopia, but is unlikely to assume any more tangible form. My definition of a project change is:

a departure from the approved project scope or design as indicated by a change to any contract, drawing or specification after its approval and issue for action.

The Impact of Changes in Relation to the Project Life Cycle

Changes are usually unwelcome to a project manager at any stage, but changes that occur towards the end of a project have the potential to cause greater cost and disruption than those which are mooted before the project begins.

When a project is in its proposal or business plan stage, any proposed change in the scope or nature of the project may cause some annoyance and result in more investigations, revised financial appraisals and fresh planning. However, the same change when a project is nearing completion would be disastrous, meaning that much of the work-in-progress or completed would have to be scrapped and restarted.

Thus it is a general rule that the later the change happens, the greater the cost and disruption it will cause. This is illustrated in Figure 23.1.

Origin and Classification of Changes

Changes can arise from a customer's request that changes the project scope or specification, a self-inflicted engineering design modification, or through some reason during work on the project that causes the finished result to differ in some respect from the issued drawings, specifications or other formal instructions. Changes (and therefore change management) can sometimes be needed even after the project has been finished and handed over to the customer. Figure 23.2 shows many routes through which changes can develop in, for example, a manufacturing project.

CLASSIFICATION OF CHANGES

Changes can usually be placed in one of two principal commercial categories namely:

1. changes originating from within the contractor's own organization without any involvement from the customer or client;
2. changes requested by the customer or client.

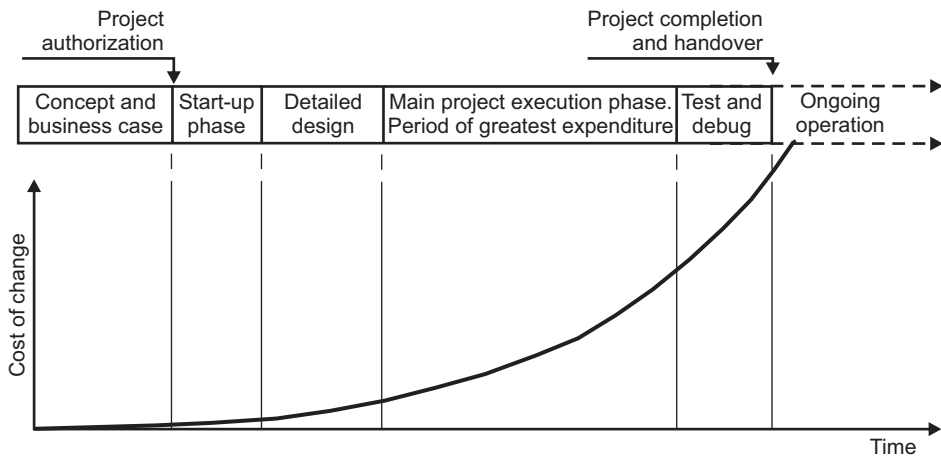


Figure 23.1 The cost of a given change in relation to project life-cycle phases

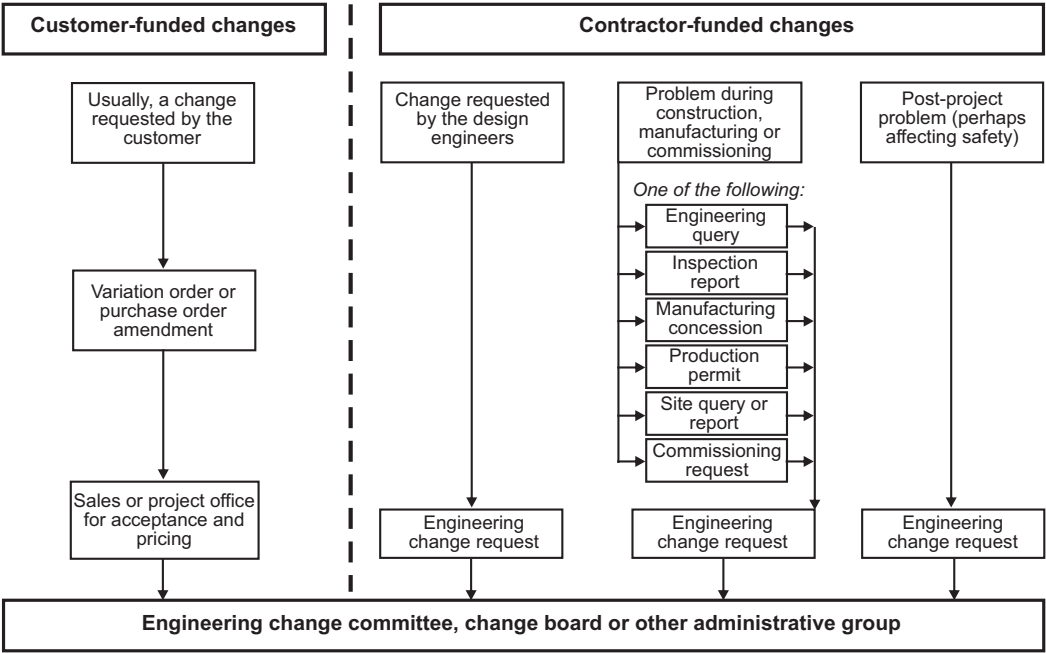


Figure 23.2 Some origins of project changes

There are, however, some borderline cases which cannot be put into either of these two classifications but which contain elements of both. A more useful way of classifying changes from the commercial point of view is to label them as ‘funded’ or ‘unfunded’. For a funded change the customer must take responsibility for the change, pay for it and often agree to a delay in the project completion date. For unfunded changes the contractor will have to absorb all the costs, with consequent risk to budget limits and expected profits. Whether or not a change is to be funded or unfunded will greatly influence how it is considered for authorization.