

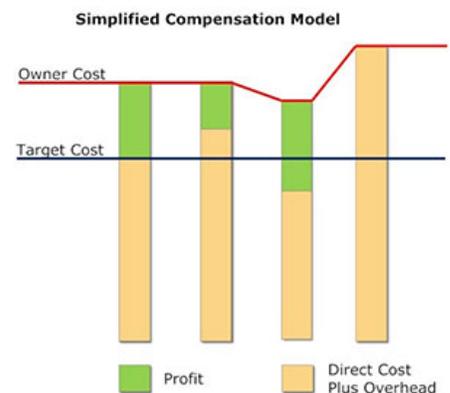
Targets of Opportunity: The Art of IPD Target Setting

Target setting is an art that can't be reduced to a simple formula. What the targets should be, how to set the targets, how to validate the targets, and how to use the targets vary from project to project. Target setting on a straight-forward tenant improvement project may be quickly and effortlessly accomplished. In contrast, a project of great complexity, especially those projects that are entering unknown territory, may require lengthy and extensive validation efforts before a target can be intelligently set.

The following discussions assume a single target, although in some instances the target must be set progressively. To simplify explanation, financial targets will be used to examine key issues, although targets may also be directly linked to project goals and values and include non-financial elements, too. In practice, we develop commercial models that are appropriate to project and client needs and target setting must adapt to these differences. A short article, such as this, cannot explore all of these issues and variations, but based on the projects we have seen, there are a few problem areas that seem to reoccur and are worth discussing.

Confusing Targets with a Guaranteed Maximum Price.

Most teams undertaking their first IPD project get stuck thinking the target is a guarantee. But the target is a metric, not a guarantee. It is used to determine whether the team makes more or less profit than anticipated. But unlike a GMP or lump sum, the team's costs are not at risk.



In the simplest model, shown above, the team's profit is modified, depending on the relationship of project cost to target cost. But note that while profit can increase or decrease, the costs are always paid by the owner. From a team's perspective, this greatly reduces their project risk.



by Howard W. Ashcraft Jr.

The team members may intellectually understand the difference, but years of doing GMP and lump sum projects have left their mark. We often see team members advocating for large contingency (or at least the same contingency they usually have in GMP projects), when it should be obvious that less contingency is needed because there is less risk. Moreover, each team member wants its own contingency, although there should only be a single, project level contingency. And Finally, we see requests for a “design contingency” separate from the project contingency even though, in a project using target value design, there is no basis or need for a “design contingency.”

The upshot is that the project facilitator and project leadership need to continuously explain the economic model, and then repeat the explanation at every level. We have also found that teams better understand the IPD commercial model—and the significance of targets—when we ask them to imagine scenarios and then we, or team leadership, explain what would financially happen in that instance and cite to the contractual provisions or cost formulas that support our conclusion. We call these sessions “Stump the Chump.”

Confusing Target Setting with Estimating.

A target is not an estimate. It is a projection of the amount of money sufficient to achieve the project goals—even if the team doesn't yet know how. An estimate, in contrast is based on knowing what will be built and how it will be built. Everyone wants estimates to be as accurate as possible, which results in creeping delay because “I really need to know [insert here] before I can reliably estimate…” This leads to wasted effort, loss of target value design opportunities, and a delayed target setting.

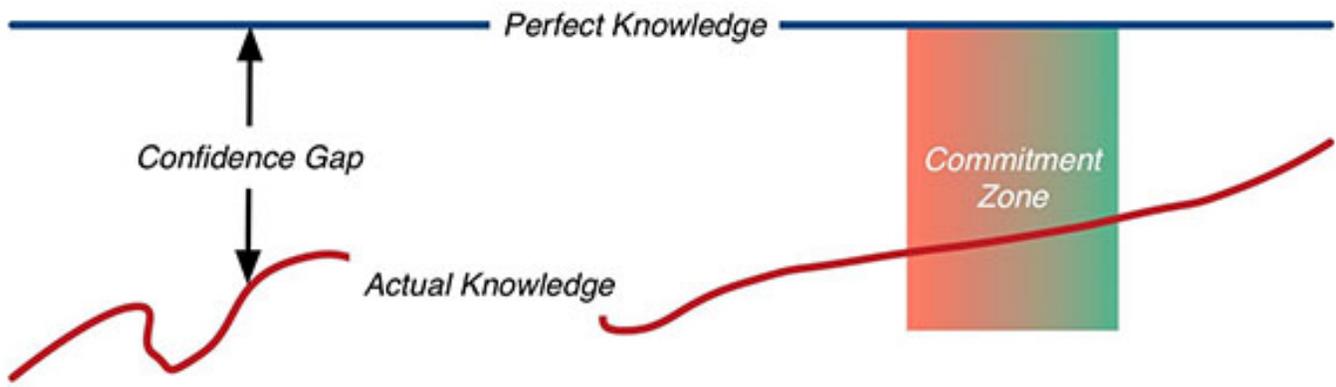
Target Timing

So, when should the target be set? We have seen several projects where the target was set too soon, either because the team set the target before clearly understanding a very unusual or novel project or because the team grabbed an arbitrary number without any effort at validation. But for each project where the target is set too early, there are many, many more where it is set too late.

Creeping delay robs the team of its target value design opportunities. If they wait until all of the key decisions are made before creating the target, they are no longer designing to budget, but budgeting the design. And because the estimate almost always exceeds the owner's allowable costs, the team resorts to value engineering, which is usually just scope cutting.

Another problem we see is that estimating tends to make it *harder* for a team to set a target. Estimators, once they have quantified the project become wed to their estimates. Even though the estimate may not have considered (because the estimate is based on historical productivity data from non-IPD projects) the opportunities created by design flexibility, designing for construction, design optimization and lean processes) human nature will not want to admit that the estimated numbers may be too conservative. Moreover, because the estimate assumes a method for executing the work (as well as the scope of work, itself) it leads to foreclosing options that the team, if it was planning to a budget, might have discovered.

Although you can set targets too early, with too little information, it is more likely that a team will set it too late. If perfect knowledge is knowing exactly what a project would cost, our actual knowledge (at least until the project is complete) lags behind creating a confidence gap. But at some point, the confidence gap shrinks to the point where the team has reasonable confidence that it can achieve the owner's goals if it continues to make progress at optimizing the project and eliminating waste. This is not a point in time, but as is shown below, is a “Commitment Zone” where the target can be set. Whether the target is set at the beginning or the end of that zone will depend on the project, the level of challenge, and the team, itself.



To avoid target creep, we have found that it is important for teams to set a date when they will lock in the target. This focuses the team on what decisions need to be made in order to reduce the confidence gap. Effort prior to setting the target should focus on large value/large uncertainty issues rather than trying to advance all design decisions uniformly. Once the big issues have been bounded, the target can be set and the lesser issues resolved later.

“Stretch” Targeting

Target timing is dependent on how much information is available when the target is set. But as the project comes into clearer focus, and the team enters the Commitment Zone, how should the target relate to the projected cost? How far should the team stretch?

A few definitions will help the discussion.

Allowable Cost (AC) is the maximum the owner can spend on the project.

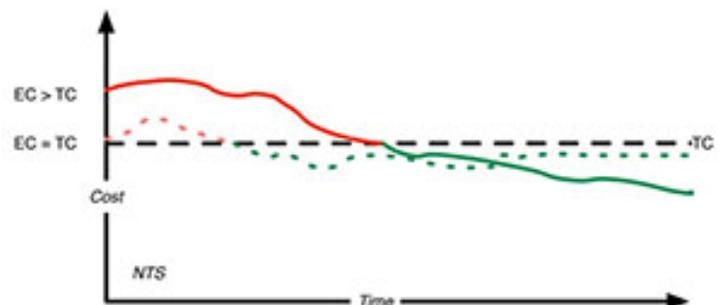
Final Actual Cost (FAC) is what it really took to complete the project. If Final Actual Cost exceeds the Allowable Cost, then the project should never have gone forward as it does not meet the owner’s needs.

Expected Cost (EC) is the team’s best projection of what the project will cost, i.e., it is a projection of what the Final Actual Cost will be.

Current Working Estimate (CWE) is the Expected Cost at the time the estimate is made. The CWE will rise and fall as the project progresses.

Target Cost (TC) is the metric we use to determine the amount of profit that the team earn.

When we started in IPD, we assumed that the Target Cost should be the same as the Expected Cost. The opportunity to increase profit by achieving a Final Actual Cost below the Target Cost would, we believed, drive positive change. It did, sort of. We found, as shown in the diagram below, that where $TC = EC$, projects slightly improved and made slightly higher profits.



Then we worked on a few projects where the owner's Allowable Cost was well below the Expected Cost. The teams could have walked away from these projects, but for one reason or the other, they didn't and the Target Cost got set well below the Expected Cost. The two different conditions are shown in the figure above.

What happened surprised us. As the teams where the $EC > TC$ dug into the project, they discovered additional costs and the Expected Cost moved further above the Target Cost. This peaked at what I have called the "Mountain of Despair." Because if the project was delivered at the Current Working Estimate, the team would make little or no profit. It turned out that the "Mountain of Despair" was really "Necessity is the Mother of Invention" in disguise. Faced with a potential economic failure, teams started looking at how they could deliver more effectively. Everyone was in it together and all ideas went on the table. This resulted in major behavioral changes that led to significant improvements in design and construction productivity. The Current Working Estimate started dropping, eventually crossing the Target Cost and bringing the project into balance.

The second surprise was that once the project was financially balanced, the teams continued to look for ways to improve. The process of continuous improvement had gained momentum and did not stop because the teams had found a new way of working together. The result is that the teams with the stretch goal definitely out performed, and often made more profit, than the teams that had set more conservative targets.

So, if setting a target aggressively is good, shouldn't teams be even more aggressive? No. At some point, the team can't see how they would make a reasonable profit regardless of how much they change behavior. A logical strategy, in this situation, is to man the project with whoever is available, cruise to the end, get paid your costs, and be done with it. This is bad for the project and terrible for the owner. Thus, the art of target setting is to have sufficient tension to kick start innovation and prevent a "business as usual" mindset, AND provide the opportunity for an exceptional outcome. The test, as those who have worked with me know, is be breathing hard when setting targets, but not hyperventilating.

Final Thoughts

This article has touched on a few of the issues presented by target setting. But each project presents its own target setting challenges and it is here that experience—either provided by team members or by IPD coaches—can help teams develop challenging but realistic goals that will stimulate superior outcomes.

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